U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-283 551

Water Resources Data for Ohio, Water Year 1977 Volume 1. Ohio River Basin

Geological Survey, Columbus, Ohio Water Resources Div

May 78

PB 283 551

Water Resources Data for Ohio

Water Year 1977

Volume 1. Ohio River Basin

U.S. GEOLOGICAL SURVEY WATER DATA REPORT OH 77-1

Prepared in cooperation with the State of Ohio
and with other agencies

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NATIONAL TECHNICAL
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U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1977

1976

OCTOBER

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1977

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BIBLIOGRAPHIC DATA SHEET

1. Report No. USGS/WRD/HD-78/010

2.

3. Recipient's Accession No. PB283551

4. Title and Subtitle
Water Resources Data for Ohio, Water Year 1977
Volume 1. Ohio River basin

5. Report Date May 1978

6.

7. Author(s)

8. Performing Organization Rept. No. USGS-WDR-OH-77-1

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
975 West Third Avenue
Columbus, Ohio 43212

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
975 West Third Avenue
Columbus, Ohio 43212

13. Type of Report & Period Covered Annual - Oct. 1, 1976 to Sept. 30, 1977

14.

15. Supplementary Notes

Prepared in cooperation with the State of Ohio and with other agencies.

16. Abstracts

Water resources data for the 1977 water year for Ohio consist of records of stage discharge, and water quality of streams; stage, contents and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report in the two volumes, contains discharge records for 164 gaging stations, stage and contents for 32 lakes and reservoirs; water quality for 157 gaging stations, 69 partial-record stations and 54 wells; and water levels for 54 observation wells. Also included are 67 crest-stage partial-record stations and 65 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Ohio.

17. Key Words and Document Analysis. 17a. Descriptors

*Ohio, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging Stations, Lakes, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement No restriction on distribution.
This report may be purchased from:
National Technical Information Service
Springfield, VA 22161

19. Security Class (This Report) UNCLASSIFIED

20. Security Class (This Page) UNCLASSIFIED

21. No. of Pages 517

22. Price A22-A01

FORM NTIS-35 (REV. 10-73) ENDORSED BY ANSI AND UNESCO. THIS FORM MAY BE REPRODUCED USCOMM-DC 8265-P74

PREFACE

This report was prepared by personnel of the Ohio district of the Water Resources Division of the U.S. Geological Survey under the supervision of J.F. Blakey, District Chief, succeeded by D.E. Click, and J.T. Callahan, Regional Hydrologist, Northeastern Region, succeeded by J.E. Biesecker. It was done in cooperation with the State of Ohio and with other agencies.

This report is one of a series issued by State. General direction for the series is by J.S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G.W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Ohio are in two volumes as follows:

Volume 1. Ohio River basin
Volume 2. St. Lawrence River basin

Water Resources Data
for
Ohio

Water Year 1977

Volume 1. Ohio River Basin

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-77-1

Prepared in cooperation with the State of Ohio
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

W. A. Radlinski, Acting Director

For information on the water program in Ohio write to
District Chief, Water Resources Division
U.S. Geological Survey
975 West Third Avenue
Columbus, Ohio 43212

1978

CONTENTS

Page
Preface.......... III
List of hydrologic stations, in downstream order, for which records are published.......... VI
Introduction.......... 1
Cooperation.......... 1
Hydrologic conditions.......... 2
Definition of terms.......... 2
Downstream order and station number.......... 6
Numbering system for wells and miscellaneous sites.......... 6
Special network and programs.......... 7
Explanation of water-discharge records.......... 7
  Collection and computation of data.......... 7
  Accuracy of field data and computed results.......... 9
  Other data available.......... 9
  Records of discharge collected by agencies other than the Geological Survey.......... 9
Explanation of water-quality records.......... 10
  Collection and examination of data.......... 10
  Water analysis.......... 10
  Water temperature.......... 10
  Sediment.......... 10
Explanation of ground-water level records.......... 11
  Collection of data.......... 11
Publications on techniques of water-resources investigations.......... 12
Station records.......... 16
Discharge at partial-record stations and miscellaneous sites.......... 384
  Low-flow partial-record stations.......... 384
  Crest-stage partial-record stations.......... 414
  Discharge measurements at miscellaneous sites.......... 418
  Water-quality assessment of Rattlesnake Creek in the Scioto River basin.......... 419
Ground-water records.......... 426
Ground-water records in strip-mines.......... 473
Chemical characteristics and biological indices of selected lakes.......... 513
Index.......... 515
Factors for converting English units to International System units (SI).......INSIDE BACK COVER

ILLUSTRATIONS

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude).......... 6
Figure 2. Map showing location of data collection stations.......... 14

HYDROLOGIC STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment]

Page

- OHIO RIVER BASIN
- Ohio River:
  - BEAVER RIVER BASIN
  - Mahoning River (head of Beaver River) at Alliance (dc) 16
  - Mahoning River below Berlin Dam, near Berlin Center (dc) 18
  - Mahoning River at Pricetown (dc) 20
    - Kale Creek near Pricetown (dc) 22
    - West Branch Mahoning River near Ravenna (dct) 24
    - West Branch Mahoning River below M.J. Kirwan Dam, at Wayland (dc) 28
    - West Branch Mahoning River near Newton Falls (dc) 30
    - Eagle Creek at Phalanx Station (dc) 32
  - Mahoning River above Duck Creek at Leavittsburg (ct) 34
  - Mahoning River at Leavittsburg (d) 39
    - Mosquito Creek below Mosquito Creek Dam, near Cortland (dc) 40
  - Mahoning River at Youngstown (dc) 42
  - Mahoning River at Lowellville (d) 44
  - Mahoning River at OH-PA State line below Lowellville (ct) 46
    - Shenango River:
      - Pymatuning Creek at Kinsman (dc) 52
  - Reservoirs in Beaver River basin 54
  - LITTLE BEAVER CREEK BASIN
  - Middle Fork Little Beaver Creek (head of Little Beaver Creek):
    - West Fork Little Beaver Creek:
      - Stateline Creek near Negley (dct) 56
  - Little Beaver Creek near East Liverpool (dct) 64
  - YELLOW CREEK BASIN
  - Yellow Creek near Hammondsville (dc) 68
  - SHORT CREEK BASIN
  - Short Creek near Dillonvale (dc) 70
  - CAPTINA CREEK BASIN
  - Captina Creek at Armstrongs Mills (dc) 72
  - LITTLE MUSKINGUM RIVER BASIN
  - Little Muskingum River at Bloomfield (dc) 74
  - MUSKINGUM RIVER BASIN
  - Tuscarawas River (head of Muskingum River) at Clinton (dc) 76
    - Chippewa Creek at Easton (dc) 78
  - Tuscarawas River at Massillon (dc) 80
  - Tuscarawas River at Navarre (ct) 82
    - Sandy Creek at Waynesburg (dc) 88
- OHIO RIVER BASIN--Continued
  - MUSKINGUM RIVER BASIN--Continued
  - Tuscarawas River--Continued
    - Sandy Creek--Continued
      - Middle Branch Nimishillen Creek (head of Nimishillen Creek) at Canton (dc) 90
      - Nimishillen Creek at North Industry (d) 92
    - Conotton Creek:
      - McGuire Creek below Leesville Dam, near Leesville (dc) 94
  - Tuscarawas River below Dover Dam, near Dover (dc) 96
    - Sugar Creek below Beach City Dam, near Beach City (dc) 98
    - Sugar Creek at Strasburg (dc) 100
    - Beaver Dam Creek:
      - Home Creek near New Philadelphia (dc) 102
    - Stillwater Creek at Piedmont (dc) 104
    - Stillwater Creek at Tippecanoe (dc) 106
    - Stillwater Creek at Uhrichsville (dc) 108
      - Little Stillwater Creek below Tappan Dam, at Tappan (dc) 110
  - Tuscarawas River at Newcomerstown (dc) 112
    - Black Fork (head of Walhonding River) below Charles Mill Dam, near Mifflin (dc) 114
      - Rocky Fork:
        - Touby Run at Mansfield (dc) 116
    - Black Fork at Loudonville (dct) 118
      - Clear Fork below Pleasant Hill Dam, near Perrysville (dc) 120
    - Mohican River (continuation of Black Fork):
      - Lake Fork below Mohicanville Dam, near Mohicanville (dc) 122
      - Kokosing River:
        - North Branch Kokosing River near Fredericktown (dc) 124
      - Kokosing River at Mount Vernon (dc) 126
    - Walhonding River (continuation of Mohican River) below Mohawk Dam, at Nellie (dc) 128
      - Killbuck Creek at Killbuck (dc) 130
      - Mill Creek near Coshocton (dc) 132
  - Muskingum River (continuation of Tuscarawas River) near Coshocton (dc) 134
- OHIO RIVER BASIN--Continued
  - MUSKINGUM RIVER BASIN--Continued
    - Wills Creek:
      - Seneca Fork below Senecaville Dam, near Senecaville (dc) 136
    - Wills Creek at Cambridge (d) 138
      - Salt Fork below Salt Fork Dam, near Cambridge (dc) 140
    - Wills Creek below Wills Creek Dam, at Wills Creek (dc) 142
    - Wakatomika Creek near Frazeysburg (dc) 144
  - Muskingum River at Dresden (dc) 146
    - South Fork Licking River (head of Licking River) near Hebron (dc) 148
      - North Fork Licking River at Utica (dc) 150
    - Licking River near Newark (dct) 152
    - Licking River below Dillon Dam, near Dillon Falls (dc) 158
  - Muskingum River at McConnelsville (dcbmts) 160
  - Reservoirs in Muskingum River basin 169
  - HOCKING RIVER BASIN
  - Hocking River:
    - Hunters Run at Lancaster (dc) 174

Clear Creek near Rockbridge (dc) 176
Hocking River at Enterprise (dc) 178
Sunday Creek:
East Branch Sunday Creek:
Burr Oak Reservoir at Burr Oak 180
Sunday Creek at Glouster (dc) 182
Hocking River below Athens (dct) 184

SHADE RIVER BASIN

Shade River near Chester (dc) 192

RACCOON CREEK BASIN

Raccoon Creek:
Sandy Run above Big Four Hollow Creek near Lake Hope (dcts) 194
Big Four Hollow Creek near Lake Hope (dcts) 200
Sandy Run near Lake Hope (dcts) 206
Raccoon Creek at Adamsville (dct) 212

SCIOTO RIVER BASIN

Scioto River near Prospect (dc) 218
Mill Creek near Bellepoint (dc) 220
Scioto River below O'Shaughnessy Dam near Dublin (dc) 222
Olentangy River at Claridon (dc) 224
Olentangy River near Delaware (dc) 226
Olentangy River near Worthington (dc) 228
Scioto River at Columbus (dc) 230

OHIO RIVER BASIN--Continued
SCIOTO RIVER BASIN--Continued

Big Walnut Creek at Central College (dc) 232
Alum Creek near Kilbourne (dc) 234
Alum Creek at Africa (dc) 236
Alum Creek at Columbus (dc) 238
Big Walnut Creek at Rees (dc) 240
Scioto River below Shadeville (ct) 242
Big Darby Creek at Darbyville (dc) 248
Scioto River at Circleville (dc) 250
Deer Creek at Mount Sterling (dc) 252
Deer Creek near Pancoastburg (dc) 254
Deer Creek at Williamsport (dc) 256
Scioto River at Chillicothe (dct) 258
Paint Creek near Greenfield (dct) 264
Rattlesnake Creek at Centerfield (dct) 268
Paint Creek below Paint Creek Dam, near Bainbridge (dc) 272
Rocky Fork near Barretts Mills (dc) 274
Paint Creek near Bourneville (dc) 276
Scioto River at Higby (dcbmts) 278
Salt Creek:
Pike Run:
Tar Hollow Creek at Tar Hollow State Park (dc) 286
Reservoirs in Scioto River basin 288

UPPER TWIN CREEK BASIN

Upper Twin Creek at McGaw (dcmts) 292

OHIO BRUSH CREEK BASIN

Ohio Brush Creek near West Union (dc) 300

WHITEOAK CREEK BASIN

Whiteoak Creek near Georgetown (dc) 302

LITTLE MIAMI RIVER BASIN

Little Miami River near Oldtown (dc) 304
Massies Creek at Wilberforce (dc) 306
Little Miami River near Spring Valley (dct) 308

OHIO RIVER BASIN--Continued
LITTLE MIAMI RIVER BASIN--Continued

Caesar Creek near Xenia (dc) 314
Anderson Fork near New Burlington (dc) 316
Little Miami River at Milford (dcbmts) 318
East Fork Little Miami River near Marathon (dc) 326
East Fork Little Miami River near Batavia (dc) 328
East Fork Little Miami River at Perintown (dc) 330

MILL CREEK BASIN

Mill Creek at Reading (dc) 332
West Fork Mill Creek Lake near Greenhills 334
West Fork Mill Creek at Woodlawn (dc) 336
Mill Creek at Carthage (dc) 338

GREAT MIAMI RIVER BASIN

Great Miami River:
Bokengehalas Creek near De Graff (d) 340
Great Miami River at Sidney (d) 341
Loramie Creek near Newport (d) 342
Loramie Creek at Lockington (d) 343
Great Miami River at Troy (d) 344
Great Miami River at Taylorsville (d) 345
Stillwater River:
Greenville Creek near Bradford (d) 346
Stillwater River at Pleasant Hill (d) 347
Stillwater River at Englewood (d) 348
Mad River at Zanesfield (dc) 350
Mad River near Urbana (d) 352
Mad River (at St. Paris Pike) at Eagle City (dc) 354
C.J. Brown Reservoir near Springfield 356
Mad River near Springfield (d) 357
Mad River near Dayton (dct) 358
Great Miami River at Dayton (d) 364
Wolf Creek at Trotwood (d) 365
Great Miami River at Miamisburg (d) 366
Great Miami River near Miamisburg (ct) 367
Twin Creek near Ingomar (d) 372
Twin Creek near Germantown (d) 373

Fourmile Creek:
  Sevenmile Creek at Camden (d) 374
Great Miami River at Hamilton (dt) 375
Great Miami River at New Baltimore (cbmts) 376

WATER RESOURCES DATA FOR OHIO, 1977

INTRODUCTION

Water resources data for the 1977 water year for Ohio consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report, in two volumes, contains discharge records for 164 gaging stations; stage and contents for 32 lakes and reservoirs; water quality for157 gaging stations, 69 partial-record stations, and 54 wells; and water levels for 54 observation wells. Also included are 67 crest-stage partial-record stations and 65 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Ohio.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Va. 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report OH-77-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Va. 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Ohio have had cooperative agreements for the systematic collection of streamflow records since 1898, for ground-water levels since 1936, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Ohio Department of Natural Resources, R.W. Teater, director, through Division of Water, W.S. Nichols, chief.

Ohio Environmental Protection Agency, N.E. Williams, director, through Division of Surveillance and Laboratory Services, Terry Voss, chief.

Ohio Department of Transportation, R.D. Jackson, director, through Division of Highway, L.R. Talbert, engineer for research and development.

Miami Conservancy District, L.B. Coy, general manager and secretary.

Three Rivers Watershed District, G.H. Watkins, secretary-treasurer.

City of Columbus Department of Public Service, R.C. Parkinson, director, through Division of Water, Jack Holt, superintendent.

City of Toledo, J.B. Daken, city manager, through Department of Public Utilities, M.B. Tennant, commissioner of water reclamation.

City of Canton Water Department, J.D. Williams, superintendant.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army in collecting records for 142 hydrologic-data stations in this report, by the Agricultural Research Service, U.S. Department of Agriculture for 40 stations, by the Soil Conservation Service, U.S. Department of Agriculture for 7 stations, by the Environmental Protection Agency for 3 stations, and by the International Joint Commission, U.S. Department of State for 1 station.

Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

At the start of the 1977 water year, streamflow was excessive in the central and eastern parts of the State. Below normal precipitation during the fall months gradually reduced streamflow until all index stations were reporting runoff well below average except in the most eastern part of the State.

One of the severest winters of record resulted in all stations reporting deficient runoff during January and most of February. A warming trend starting February 21 accompanied by precipitation starting on the 23rd resulted in a gradual movement of ice out of the channels and by March all streams were reporting normal runoff.

Heavy rains during the latter part of April caused excessive runoff in northwest and eastern Ohio. Below normal precipitation resulted in deficient runoff throughout the State during June and July. Increased precipitation resulted in excessive runoff in all but western Ohio at the close of the water year.

Ground-water levels in general reflected seasonal changes except for the northeastern area where a record low for the month of May occurred.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/s, ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution area, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G, ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per kilogram (UG/KG, ug/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of bottom material.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay...........	0.00024 - 0.004	Sedimentation.
Silt...........	.004 - .062	Sedimentation.
Sand...........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, number, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC,pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended-sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1976.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1.

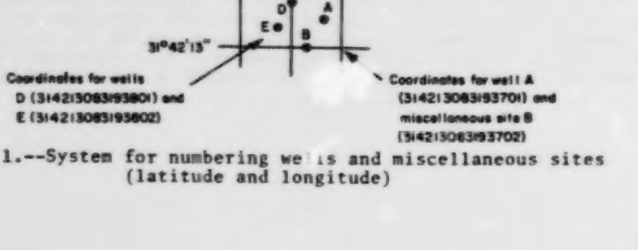
31°42'15"
14"
31°42'13"
C
D
A
E
B
Coordinates for miscellaneous site C (314214083193701)
Coordinates for wells D (314213083193801) and E (314213083193802)
Coordinates for well A (314213083193701) and miscellaneous site B (314213083193702)

Figure 1.--System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-back water techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage height and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations, the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves.

During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given first, the extremes for period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion. In the yearly summary, below the monthly summary the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record stations are presented in two tables. The first is a table of discharge measurements and water-quality data at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made or water-quality samples are taken to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements and chemical analyses are also given in special tables following the tables of partial-record stations.

For gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected during water year 1977 at many sites in Ohio by the National Weather Service, NOAA, U.S. Department of Commerce, by the Corps of Engineers, U.S. Army and by other agencies. The National Water Data Exchange, Water Resources Division, U.S.Geological Survey, National Center, Reston, Va. 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, descriptive statements are given; the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 2.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between sucessive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office. Prices are effective January 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W.Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. $1.00.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages. $2.50.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. $1.60.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $0.35.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972, 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elments in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

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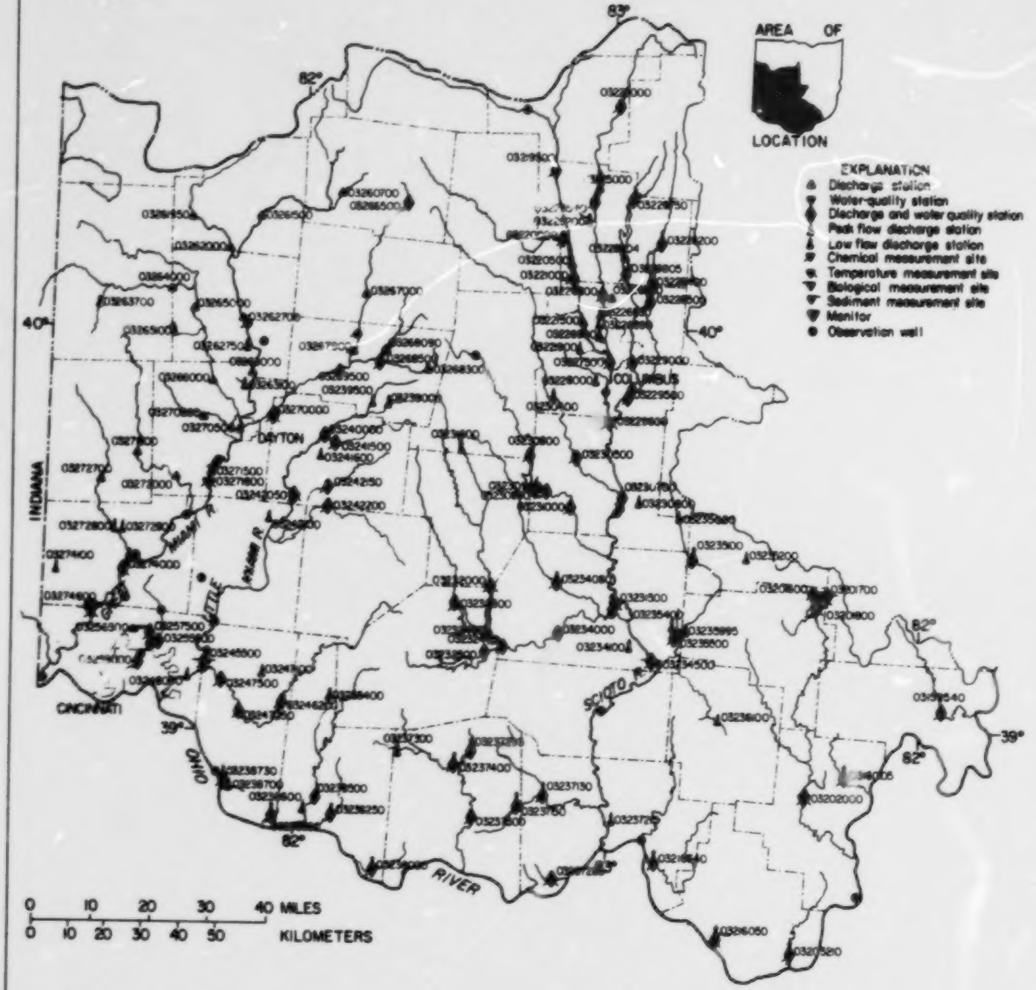
AREA OF LOCATION
EXPLANATION
▲ Discharge station
▼ Water-quality station
◆ Discharge and water quality station
Peak flow discharge station
Low flow discharge station
Chemical measurement site
Temperature measurement site
Biological measurement site
Sediment measurement site
▼ Monitor
● Observation well
83°
82°
40°
39°
INDIANA
DAYTON
COLUMBUS
CINCINNATI
MIAMI R.
LITTLE MIAMI R.
SCIOTO R.
OHIO
RIVER
0 10 20 30 40 MILES
0 10 20 30 40 50 KILOMETERS

FIGURE 2a.--Location of data-collection stations

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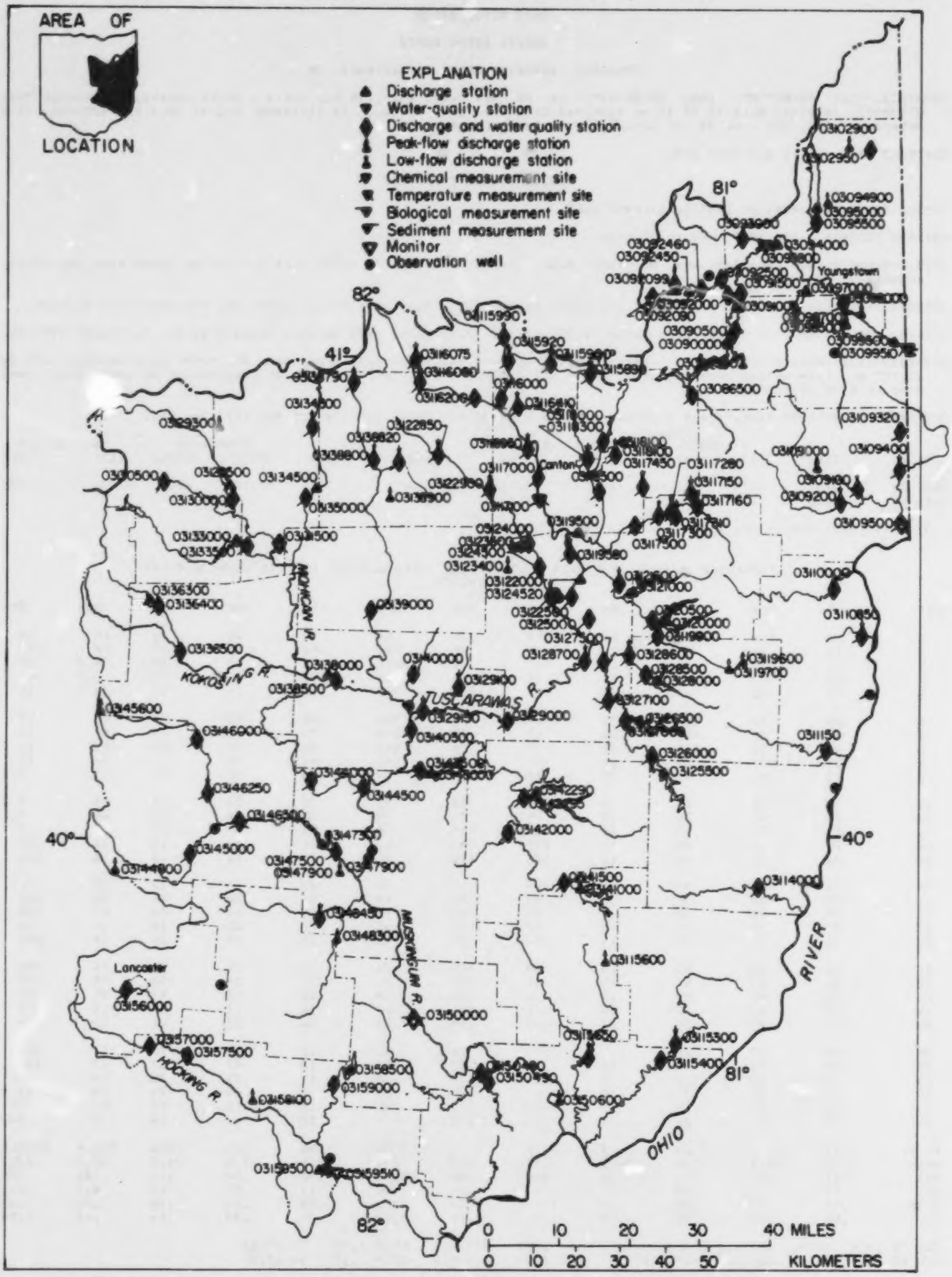
AREA OF
LOCATION
EXPLANATION
Discharge station
Water-quality station
Discharge and water quality station
Peak-flow discharge station
Low-flow discharge station
Chemical measurement site
Temperature measurement site
Biological measurement site
Sediment measurement site
Monitor
Observation well
81°
82°
41°
40°
Youngstown
Canton
Lancaster
MOHICAN R.
KOKOSING R.
TUSCARAWAS R.
MUSKINGUM R.
HOCKING R.
OHIO
RIVER
03102900
03102950
03094800
03095000
03095500
03093000
03094000
03098600
03092460
03092450
03091500
03097000
03099000
03092090
03090500
03090000
03086500
03115990
03115920
03116075
03116080
03116000
03116200
03115810
03134500
03122850
03138820
03138800
03134500
03138900
03117000
03122950
03117280
03117450
03117150
03117160
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03119500
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03109100
03109200
03109500
03110000
03110850
03130500
03130000
03133000
03133500
03131500
03135000
03136300
03136400
03136500
03139000
03124000
03123400
03124300
03122000
03124520
03125000
03127500
03128700
03120500
03120000
03119800
03119600
03119700
03128600
03128500
03128000
03127100
03126000
03125500
03138000
03138500
03140000
03129100
03129150
03129000
03140500
03145600
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03145000
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03141000
03111500
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03148300
03115600
03156000
03150000
03157000
03157500
03158500
03159000
03158100
03150480
03150490
03115650
03115300
03115400
03150600
03159500
03159510
0 10 20 30 40 MILES
0 10 20 30 40 50 KILOMETERS

FIGURE 2b.--Location of data-collection stations

OHIO RIVER BASIN

BEAVER RIVER BASIN

03086500 MAHONING RIVER AT ALLIANCE, OH

LOCATION.--Lat 40°55'58", long 81°05'41", in SE 1/4 sec. 24, T.19 N., R.6 W., Stark County, Hydrologic Unit 05030103, on right bank 15 ft (5 m) upstream from Webb Avenue Bridge in Alliance, 0.2 mi (0.3 km) upstream from waterworks dam, and 4 mi (6 km) upstream from Beech Creek.

DRAINAGE AREA.--89.2 mi^2 (231 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1941 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 1,037.3 ft (316.17 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good. Flow slightly regulated by Westville Reservoir 9.3 mi (15.0 km) upstream from station.

AVERAGE DISCHARGE.--36 years, 84.9 ft^3/s (2.404 m^3/s), 12.93 in/yr (328 mm/yr), unadjusted for diversion 1941-55.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft^3/s (276 m^3/s) Jan. 21, 1959, gage height, 9.11 ft (2.777 m), from rating curve extended above 3,300 ft^3/s (93.5 m^3/s) on basis of computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft^3/s (25.5 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 25	0100	1610	45.6	4.18	1.274	Apr. 3	0700	*3010	85.2	*5.54	1.689
Mar. 19	0400	1200	34.0	3.68	1.122						

Minimum daily discharge, 8.1 ft^3/s (0.23 m^3/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	112	24	21	17	136	84	49	12	48	15	19
2	23	74	22	21	17	98	522	58	11	27	12	21
3	21	59	22	21	17	88	2270	128	12	15	9.3	58
4	19	50	22	21	17	155	710	102	11	23	8.1	65
5	19	46	23	21	17	265	773	132	14	24	14	24
6	20	42	25	21	17	143	534	109	23	21	14	19
7	21	40	112	20	17	98	260	74	16	29	181	14
8	23	38	118	20	17	74	207	55	12	53	155	11
9	30	37	66	20	17	65	143	43	58	27	82	10
10	53	42	47	20	17	65	109	38	52	17	43	9.3
11	39	45	62	19	18	58	95	35	23	16	27	9.3
12	29	41	71	19	34	74	84	33	16	17	25	9.2
13	27	36	50	19	95	640	68	30	16	23	20	13
14	25	35	39	19	155	563	65	28	16	16	17	121
15	22	32	36	19	136	229	58	25	14	13	16	146
16	24	32	34	19	109	133	49	23	16	23	15	74
17	23	30	34	19	90	90	49	21	14	74	38	181
18	24	30	32	19	75	429	46	21	19	60	27	125
19	23	29	30	19	62	953	50	23	25	28	16	64
20	31	27	62	19	55	368	48	23	18	34	14	209
21	39	26	93	19	49	306	71	19	15	36	16	295
22	34	25	54	19	49	192	61	17	14	105	45	107
23	29	25	42	19	235	181	104	16	12	47	35	64
24	57	23	31	19	990	124	240	14	11	24	19	49
25	131	25	29	21	1280	91	143	14	13	65	18	216
26	95	27	28	21	570	74	95	12	15	73	19	269
27	59	32	26	19	320	65	81	12	12	33	19	151
28	47	32	24	18	226	132	71	11	17	25	18	69
29	42	34	24	19	---	270	84	11	29	24	19	41
30	40	27	22	17	---	139	65	11	18	23	20	33
31	78	---	22	17	---	113	---	12	---	19	19	---
TOTAL	1174	1153	1326	604	4718	6411	7239	1199	554	1062	995.4	2495.8
MEAN	37.9	38.4	42.8	19.5	169	207	241	38.7	18.5	34.3	32.1	83.2
MAX	131	112	118	21	1280	953	2270	132	58	105	181	295
MIN	19	23	22	17	17	58	46	11	11	13	8.1	9.2
CFSM	.43	.43	.48	.22	1.90	2.32	2.70	.43	.21	.39	.36	.93
IN.	.49	.48	.55	.25	1.97	2.67	3.02	.50	.23	.44	.42	1.04

CAL YR 1976 TOTAL 32728.1 MEAN 89.4 MAX 1290 MIN 7.0 CFSM 1.00 IN 13.65
WTR YR 1977 TOTAL 28931.2 MEAN 79.3 MAX 2270 MIN 8.1 CFSM .89 IN 12.07

03086500 MAHONING RIVER AT ALLIANCE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 17...	1000	92	530	7.8	8.0	10.2	86	2.4	230	140	61	18
JUL 11...	1130	13	765	7.6	25.5	6.4	77	6.2	320	170	84	26

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 17...	18	4.6	100	0	82	2.5	120	31	.2	6.9	309	2.2
JUL 11...	29	5.6	178	0	146	7.2	170	39	.3	9.4	452	.74

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 17...	.03	.24	.13	2	10	10	70	6	340	.0	40	5.1
JUL 11...	.08	.75	.30	4	20	3	40	6	450	.0	10	8.3

03090500 MAHONING RIVER BELOW BERLIN DAM, NEAR BERLIN CENTER, OH

LOCATION.--Lat 41°02'54", long 81°00'05", in T.1 N., R.6 W., Mahoning County, Hydrologic Unit 05030103, on left bank 600 ft (183 m) downstream from Berlin Dam, and 3.2 mi (5.1 km) northwest of Berlin Center.

DRAINAGE AREA.--248 mi² (642 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1942, published as "near Berlin Center".

REVISED RECORDS.--WSP 743: 1932. WSP 853: 1936. WSP 873: 1932-34, 1935(M), 1936-38. WSP 1907: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 958.00 ft (291.998 m) above mean sea level, levels by Corps of Engineers. Prior to Oct. 1, 1942, at site 1.8 mi (2.9 km) upstream at datum 966.15 ft (294.482 m) above mean sea level, adjustment of 1912, levels by Mahoning Valley Sanitary District. Oct. 1, 1942, to May 11, 1949, at site 200 ft (61 m) downstream from present site at datum 8.00 ft (2.438 m) lower than present datum.

REMARKS.--Records good. Flow regulated since 1942 by Berlin Lake (see station 03090000). Small diversion since 1958 from Berlin Lake to Meander Creek Reservoir (see station 03097000) by the Berlin pipeline.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--47 years, 229 ft³/s (6.485 m³/s) (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,630 ft³/s (244 m³/s) Jan. 25, 1937, gage height, 10.97 ft (3.344 m), site and datum then in use; no flow at times during 1948-49, 1967, 1970-71.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,000 ft³/s (56.6 m³/s) Apr. 7, gage height, 4.46 ft (1.359 m); minimum daily, 50 ft³/s (1.42 m³/s) Feb. 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	316	228	76	51	106	429	285	215	126	161	291
2	219	316	197	76	51	152	443	285	215	126	131	291
3	219	316	167	76	51	151	484	285	191	126	162	291
4	219	328	122	74	51	151	427	285	163	126	178	291
5	219	340	120	72	51	151	503	285	163	144	194	291
6	219	340	121	52	51	151	1110	265	163	162	211	303
7	219	340	119	52	50	151	1840	242	163	163	219	317
8	219	340	119	52	50	151	1930	242	147	166	187	317
9	219	340	121	52	50	172	1870	219	117	166	175	307
10	219	334	185	51	50	197	1800	139	103	166	175	296
11	219	334	256	51	50	195	1030	78	103	189	175	284
12	219	334	256	51	51	196	227	78	103	215	175	270
13	242	334	260	51	51	209	151	78	117	215	175	270
14	260	334	190	51	51	223	152	78	147	205	175	270
15	260	436	119	51	51	293	155	78	163	194	185	261
16	260	598	119	51	52	358	155	78	163	195	198	251
17	260	590	116	51	53	358	155	78	162	188	208	251
18	260	590	116	51	53	376	116	78	149	178	241	251
19	256	582	116	51	53	403	73	79	134	178	265	251
20	256	574	118	51	53	415	72	79	134	160	265	258
21	256	574	119	51	54	494	69	79	134	143	277	256
22	265	566	119	51	53	574	68	79	134	145	291	280
23	275	566	119	51	53	576	69	79	150	145	291	306
24	280	566	121	51	63	574	73	79	166	145	291	307
25	280	550	118	51	62	569	183	79	166	145	291	312
26	300	544	117	51	62	561	285	79	166	145	291	374
27	316	394	120	51	62	552	285	79	166	145	291	440
28	316	256	120	51	62	548	285	79	166	145	291	440
29	316	257	120	51	---	550	285	147	142	145	291	440
30	316	262	120	51	---	550	285	215	126	145	291	440
31	316	---	91	51	---	491	---	215	---	145	291	---
TOTAL	7918	12551	4449	1704	1495	10598	15009	4523	4531	4981	7042	9207
MEAN	255	418	144	55.0	53.4	342	500	146	151	161	227	307
MAX	316	598	260	76	63	576	1930	285	215	215	291	440
MIN	219	256	91	51	50	106	68	78	103	126	131	251

CAL YR 1976 TOTAL 97931 MEAN 268 MAX 2060 MIN 64
WTR YR 1977 TOTAL 84008 MEAN 230 MAX 1930 MIN 50

Note: No diversion during the year by Mahoning Valley Sanitary District.

03090500 MAHONING RIVER BELOW BERLIN DAM, NEAR BERLIN CENTER, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 17...	1200	350	470	8.0	7.0	13.0	110	2.5	170	99	45	14
JUL 11...	1350	198	450	7.4	18.5	10.6	110	2.9	170	98	46	13

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 17...	24	5.2	86	0	71	1.4	85	43	.1	4.9	264	1.7
JUL 11...	18	4.3	86	0	71	5.5	82	32	.2	2.8	241	.99

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 17...	.04	.78	.08	2	10	9	50	7	380	.0	100	4.8
JUL 11...	.01	.19	.04	2	<10	2	20	3	450	.0	0	7.4

03091500 MAHONING RIVER AT PRICETOWN, OH

LOCATION.--Lat 41°07'53", long 80°58'17", in T.2 N., R.5 W., Mahoning County, Hydrologic Unit 05030103, on left bank 0.3 mi (0.5 km) downstream from Milton Dam, 0.5 mi (0.8 km) southwest of Pricetown, and 3 mi (5 km) upstream from Kale Creek.

DRAINAGE AREA.--273 mi^2 (707 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

REVISED RECORDS.--WSP 728: 1930(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 905.00 ft (275.844 m) above mean sea level, adjustment of 1912. Prior to Aug. 14, 1929 nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Berlin Lake beginning 1942 and Milton Reservoir (see stations 03090000 and 03091000). Diversion upstream from station from Berlin Lake for part of municipal supply of Mahoning Valley Sanitary District (see station 03090500).

COOPERATION.--Six discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--48 years, 252 ft^3/s (7.137 m^3/s) (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,770 ft^3/s (192 m^3/s) Jan. 25, 1937, gage height, 15.01 ft (4.575 m), from rating curve extended above 4,200 ft^3/s (119 m^3/s) on basis of velocity-area studies; minimum daily, 0.4 ft^3/s (0.011 m^3/s) Nov. 9, 1941, Feb. 19, 20, Oct. 11, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) Apr. 9, gage height, 6.84 ft (2.085 m); minimum daily, 61 ft^3/s (1.73 m^3/s) Jan. 29 to Feb. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	409	273	93	61	64	610	235	110	135	133	228
2	269	406	270	93	61	64	617	243	149	135	147	228
3	269	403	270	91	61	64	620	249	144	135	158	225
4	269	403	270	91	61	64	459	255	147	135	167	225
5	269	403	267	91	61	65	568	261	149	149	167	225
6	269	403	267	91	61	65	914	267	151	165	167	252
7	269	403	267	91	61	65	946	270	151	165	153	294
8	269	400	267	91	61	65	1830	273	153	156	129	294
9	269	400	264	91	61	65	2230	276	149	140	138	282
10	269	400	264	91	61	65	2180	276	138	140	153	249
11	269	397	264	91	61	65	1810	279	140	149	163	249
12	252	397	264	90	61	65	905	279	142	156	165	249
13	233	397	264	90	61	68	890	279	153	156	163	252
14	233	394	197	90	61	67	648	279	165	153	163	252
15	233	472	91	90	61	67	246	276	165	151	172	249
16	233	664	93	90	61	67	205	210	163	151	187	249
17	233	882	93	90	61	67	205	112	156	153	197	249
18	247	878	91	90	61	72	205	114	151	144	207	246
19	269	874	93	90	61	68	207	112	129	133	212	246
20	269	870	93	90	61	69	207	110	129	118	217	235
21	269	870	93	88	61	297	210	108	129	91	222	222
22	313	862	93	88	61	603	210	104	131	90	230	220
23	364	858	93	88	61	603	212	98	144	90	230	220
24	364	854	93	88	65	603	215	95	163	98	230	225
25	364	850	93	88	65	603	215	91	165	102	228	225
26	385	746	93	88	64	606	215	90	165	90	226	288
27	412	456	93	88	64	606	217	88	165	88	228	393
28	409	273	93	75	64	606	222	86	170	95	228	393
29	409	273	93	61	---	610	228	86	158	104	228	393
30	409	270	93	61	---	610	230	86	135	112	228	393
31	409	---	93	61	---	610	---	88	---	120	228	---
TOTAL	9211	16567	5245	2689	1725	7678	18677	5675	4459	3999	5866	7950
MEAN	297	552	169	86.7	61.6	248	623	183	149	129	189	265
MAX	412	882	273	93	65	610	2230	279	170	165	230	393
MIN	212	270	91	61	61	64	205	86	110	88	129	220

CAL YR 1976 TOTAL 110355 MEAN 302 MAX 2210 MIN 85
WTR YR 1977 TOTAL 89741 MEAN 246 MAX 2230 MIN 61

03091500 MAHONING RIVER AT PRICETOWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
16...	1515	64	625	7.9	6.0	12.8	108	3.3	220	120	57	19
JUL												
12...	1325	148	435	7.8	26.0	7.6	93	3.8	160	85	44	12

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
16...	32	5.0	120	0	98	2.4	120	51	.2	2.9	347	.98
JUL												
12...	19	4.4	90	0	74	2.3	78	35	.2	1.8	240	.49

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
16...	.03	.74	.07	2	10	7	40	6	350	.0	50	3.4
JUL												
12...	.02	.21	.08	2	<10	3	200	13	560	.0	10	7.1

03092000 KALE CREEK NEAR PRICETOWN, OH

LOCATION.--Lat 41°08'23", long 80°59'43", in T.3 N., R.5 W., Trumbull County, Hydrologic Unit 05030103, on right bank at downstream side of county line road bridge, 0.4 mi (0.6 km) north of Mahoning-Trumbull County line, 1.5 mi (2.4 km) northwest of Pricetown, 2.2 mi (3.5 km) upstream from mouth, and 3.5 mi (5.6 km) south of Newton Falls.

DRAINAGE AREA.--21.9 mi² (56.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Prior to June 1941 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 973: 1942. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 914.70 ft (278.800 m) above mean sea level, adjustment of 1912. Prior to June 27, 1941, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--37 years, 22.6 ft³/s (0.640 m³/s), 14.02 in/yr (356 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft³/s (110 m³/s) Jan. 21, 1959, gage height, 8.52 ft (2.597 m); no flow at times in 1952-55, 1962-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	2100	ice jam	ice jam	*5.77	1.759	Mar. 18	2100	830	23.5	5.10	1.554
Feb. 25	0200	*1220	34.6	5.76	1.756	Apr. 2	2330	1120	31.7	5.60	1.707
Mar. 13	1130	667	18.9	4.76	1.451	Aug. 7	1930	640	18.1	4.70	1.433

Minimum discharge, no flow part of day June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	33	3.4	3.0	2.5	4	16	6.2	1.8	20	3.5	4.6
2	4.2	14	3.1	2.8	2.5	32	380	5.6	1.8	10	3.1	7.7
3	3.5	8.4	2.8	2.8	2.5	20	497	8.4	1.5	5.2	2.5	12
4	3.2	6.5	2.6	2.8	2.5	41	50	13	1.5	3.8	2.3	10
5	3.4	5.2	2.5	2.8	2.5	93	97	14	1.3	3.2	2.0	11
6	3.4	4.7	2.5	2.8	2.5	38	41	13	1.3	3.2	2.9	12
7	4.4	4.4	17	2.8	2.5	24	24	7.7	1.3	3.2	317	12
8	5.0	4.2	37	2.8	2.5	18	17	5.4	1.2	3.2	151	11
9	5.2	4.0	17	2.7	2.5	15	12	4.2	.82	4.3	5.1	11
10	7.7	4.4	8.4	2.7	2.7	14	9.2	3.5	1.1	3.8	1.6	10
11	7.0	5.2	9.7	2.7	4.0	13	7.7	3.2	.82	2.8	2.0	9.3
12	4.5	5.9	17	2.7	5.4	17	6.3	2.9	.74	1.2	2.5	8.9
13	3.4	5.2	13	2.7	14	451	5.2	2.8	.49	1.3	1.3	9.1
14	2.5	4.5	9.0	2.7	39	84	4.7	2.6	.30	1.3	.31	34
15	2.1	4.2	6.1	2.7	28	38	4.4	2.4	.33	.82	.09	33
16	1.8	3.8	5.2	2.7	24	26	4.0	2.2	.40	.90	.06	30
17	1.6	3.5	5.0	2.7	20	17	3.7	2.1	1.1	2.5	5.1	60
18	1.4	3.4	4.9	2.7	17	352	3.5	2.0	7.2	9.5	3.0	40
19	1.3	3.2	4.7	2.7	15	279	3.5	1.9	4.1	6.7	.41	26
20	1.4	3.2	7.9	2.7	13	61	3.7	1.9	1.5	8.2	.21	105
21	1.8	3.1	22	2.6	12	73	5.2	1.8	.90	7.9	1.8	78
22	1.9	3.1	14	2.5	10	40	7.0	1.8	.12	9.2	11	38
23	2.0	2.9	7.0	2.5	30	48	37	2.2	.08	6.0	8.8	19
24	5.0	2.9	5.0	2.5	380	23	166	2.0	.16	5.0	1.8	26
25	33	2.8	4.2	2.5	750	14	58	1.8	.16	123	.90	231
26	25	3.1	4.0	2.5	157	10	24	1.9	.18	39	.82	100
27	11	3.5	3.8	2.5	90	8.2	16	1.8	.21	11	.50	49
28	7.2	4.0	3.6	2.5	64	54	11	1.6	56	4.6	.80	14
29	5.4	4.4	3.4	2.5	---	108	9.5	1.8	53	3.7	1.9	8.2
30	4.7	4.0	3.2	2.5	---	29	8.4	1.8	17	4.6	2.7	5.9
31	11	---	3.2	2.5	---	24	---	1.8	---	4.4	3.4	---
TOTAL	180.0	164.7	252.2	82.6	1697.6	2105.2	1532.0	125.3	158.41	313.52	540.40	1025.7
MEAN	5.81	5.49	8.14	2.66	60.6	67.9	51.1	4.04	5.28	10.1	17.4	34.2
MAX	33	33	37	3.0	750	451	497	14	56	123	317	231
MIN	1.3	2.8	2.5	2.5	2.5	8.2	3.5	1.6	.08	.82	.06	4.6
CFSM	.27	.25	.37	.12	2.77	3.10	2.33	.18	.24	.46	.80	1.56
IN.	.31	.28	.43	.14	2.88	3.58	2.60	.21	.27	.53	.92	1.74

CAL YR 1976 TOTAL 12923.16 MEAN 35.3 MAX 1800 MIN .44 CFSM 1.61 IN 21.95
WTR YR 1977 TOTAL 8177.63 MEAN 22.4 MAX 750 MIN .06 CFSM 1.02 IN 13.89

03092000 KALE CREEK NEAR PRICETOWN, OH--Continued

WATER-QUALITY RECORD.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
16...	1630	24	385	7.4	11.0	10.4	96	2.6	120	86	29	12
JUL												
12...	1445	1.2	930	7.8	25.5	7.8	94	3.6	370	220	85	39

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
16...	21	3.9	44	0	36	2.8	84	31	.1	5.9	209	.56
JUL												
12...	50	5.0	189	0	155	4.8	240	47	.2	2.1	562	.03

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
16...	.01	.01	.04	2	10	9	100	6	100	.0	50	3.8
JUL												
12...	.01	.05	.06	3	20	3	40	6	270	.0	20	9.1

03092090 WEST BRANCH MAHONING RIVER NEAR RAVENNA, OH

LOCATION.--Lat 41°09'41", long 81°11'50", in T.3 N., R.8 W., Portage County, Hydrologic Unit 05030103, on left bank at downstream side of bridge on Newton Falls Road, 2.5 mi (4.0 km) east of Ravenna.

DRAINAGE AREA.--21.8 mi² (56.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,011.8 ft (308.40 m) above mean sea level, Portage County bench mark.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--12 years, 27.1 ft³/s (0.767 m³/s), 16.88 in/yr (429 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft³/s (59.2 m³/s) Apr. 15, 1972, gage height, 8.81 ft (2.685 m); minimum, 0.45 ft³/s (0.013 m³/s) Sept. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharge 568 ft³/s (16.1 m³/s) Mar. 18, gage height, 5.31 ft (1.618 m) above base of 450 ft³/s (12.7 m³/s); minimum discharge, 1.8 ft³/s (0.051 m³/s) July 11, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	19	9.4	5.5	4.4	22	23	9.5	3.8	12	3.8	4.4
2	7.4	14	9.0	5.0	4.4	17	219	12	3.3	5.0	3.5	5.0
3	7.1	12	8.4	5.0	4.4	13	200	17	3.5	3.0	3.3	4.1
4	6.6	12	8.0	5.0	4.4	47	63	23	3.0	3.3	2.8	3.5
5	6.0	11	8.0	5.0	4.4	53	91	33	3.8	3.0	3.3	3.3
6	5.5	10	8.0	4.8	4.4	23	51	18	10	2.5	13	8.0
7	6.0	10	22	4.8	4.4	18	32	13	6.0	3.0	36	6.0
8	5.5	11	20	4.8	4.4	21	25	10	4.4	8.0	14	4.7
9	6.0	12	14	4.8	4.4	19	19	8.0	8.5	4.1	7.0	3.8
10	6.9	15	12	4.8	5.0	18	17	7.5	7.0	2.5	6.0	3.5
11	6.3	18	18	4.6	10	15	15	7.0	4.4	2.1	12	2.8
12	4.9	15	18	4.6	20	34	13	6.0	3.5	2.3	27	2.5
13	4.3	13	14	4.6	30	229	11	5.7	3.5	2.8	12	6.0
14	3.9	12	11	4.6	36	70	10	5.7	3.3	2.3	6.5	52
15	3.7	11	9.5	4.6	42	39	9.0	5.0	3.3	2.1	5.7	15
16	3.1	11	9.0	4.6	34	27	8.5	4.7	3.3	2.5	4.7	30
17	3.1	10	8.5	4.6	28	18	8.5	4.4	4.1	5.3	5.3	45
18	2.7	10	8.0	4.6	26	326	9.5	4.4	8.0	3.8	4.1	22
19	2.9	10	8.0	4.6	24	165	10	4.7	5.0	17	3.3	18
20	3.5	10	18	4.6	22	98	8.5	4.4	3.8	13	3.0	15
21	5.2	9.7	24	4.6	19	83	8.0	4.4	3.3	11	9.0	10
22	4.5	9.4	12	4.6	17	75	8.5	4.1	2.8	20	52	8.0
23	3.9	9.4	10	4.6	70	67	29	3.5	2.8	7.0	16	6.0
24	12	9.0	9.0	4.6	123	45	51	3.8	2.5	4.7	7.5	7.0
25	22	9.0	8.0	4.6	217	28	30	4.1	4.7	31	5.3	6.5
26	17	11	7.0	4.4	92	22	23	4.1	3.5	16	4.4	8.0
27	14	14	6.5	4.4	71	19	20	3.5	3.0	6.0	5.3	7.5
28	13	13	6.0	4.4	49	66	15	3.5	7.0	4.4	4.1	6.5
29	12	12	6.0	4.4	---	72	14	3.0	7.5	4.1	3.5	6.0
30	12	10	5.5	4.4	---	37	11	3.0	4.4	6.5	3.3	5.7
31	20	---	5.5	4.4	---	34	---	3.3	---	4.4	3.3	---
TOTAL	239.4	352.5	340.3	144.9	974.6	1820	1052.5	243.3	137.0	214.7	290.0	325.8
MEAN	7.72	11.8	11.0	4.67	34.8	58.7	35.1	7.85	4.57	6.93	9.35	10.9
MAX	22	19	24	5.5	217	326	219	33	10	31	52	52
MIN	2.7	9.0	5.5	4.4	4.4	13	8.0	3.0	2.5	2.1	2.8	2.5
CFSM	.35	.54	.51	.21	1.60	2.69	1.61	.36	.21	.32	.43	.50
IN.	.41	.60	.58	.25	1.66	3.11	1.80	.42	.23	.37	.49	.56

CAL YR 1976 TOTAL 9268.5 MEAN 25.3 MAX 515 MIN 2.2 CFSM 1.16 IN 15.82
WTR YR 1977 TOTAL 6135.0 MEAN 16.8 MAX 326 MIN 2.1 CFSM .77 IN 10.47

03092090 WEST BRANCH MAHONING RIVER NEAR RAVENNA, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Water temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.0°C Aug. 24, 1968; minimum, 0.0°C on many days during winter peropds.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5 °C July 7; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 15...	1400	39	365	7.6	9.5	11.0	96	1.8	110	62	31	7.8
JUL 11...	1530	2.4	545	8.1	24.5	9.8	120	1.7	180	44	52	13

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 15...	23	3.5	58	0	48	2.3	44	44	.1	6.9	189	.90
JUL 11...	35	2.7	170	0	139	2.2	36	57	.2	8.0	288	.12

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 15...	.01	.05	.05	1	10	6	110	4	60	.0	30	1.2
JUL 11...	.01	.07	.06	3	20	4	160	7	210	.0	30	7.8

03092090 WEST BRANCH MAHONING RIVER NEAR RAVENNA, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	11.0	5.5	4.5	0.5	0.5	1.0	0.5	0.0	0.0	2.5	0.5
2	14.5	12.0	4.5	3.5	0.5	0.0	1.0	1.0	0.5	0.0	2.0	0.5
3	14.5	13.0	6.0	4.5	0.5	0.0	1.0	1.0	0.5	0.5	3.0	0.5
4	14.5	12.0	5.5	3.5	0.5	0.5	1.0	1.0	0.5	0.5	4.5	3.0
5	15.0	13.0	4.0	3.0	0.5	0.5	1.0	1.0	0.5	0.0	3.5	2.0
6	15.0	14.5	4.0	3.0	0.5	0.5	1.0	1.0	0.0	0.0	5.0	1.5
7	14.5	13.5	4.0	3.5	0.5	0.0	1.0	1.0	0.0	0.0	4.0	2.5
8	13.5	12.0	1.5	0.5	0.5	0.0	1.0	1.0	0.0	0.0	5.5	1.0
9	12.0	11.0	2.0	0.0	0.5	0.5	1.0	1.0	0.5	0.0	8.0	3.5
10	11.0	10.0	3.0	1.0	0.5	0.5	1.0	1.0	0.5	0.0	9.0	5.0
11	11.5	10.5	3.0	1.5	0.5	0.5	1.0	1.0	0.5	0.5	10.0	5.5
12	11.5	10.0	2.0	1.0	0.5	0.5	1.0	1.0	0.5	0.5	9.0	7.0
13	13.5	11.0	2.5	1.0	0.5	0.5	1.0	1.0	0.5	0.5	9.0	8.0
14	13.0	11.0	2.0	0.5	0.5	0.5	1.0	1.0	0.5	0.5	8.5	7.5
15	11.5	10.5	1.5	0.0	1.0	0.5	1.0	1.0	0.5	0.5	10.5	6.5
16	11.5	10.0	1.5	0.0	1.0	0.5	1.0	1.0	0.5	0.5	10.5	7.5
17	10.0	9.0	1.5	0.0	0.5	0.5	1.0	1.0	0.5	0.0	8.5	5.5
18	9.0	6.5	2.5	1.0	1.0	0.5	1.0	1.0	0.5	0.0	6.5	3.0
19	7.0	6.0	3.5	1.5	1.0	0.5	1.0	1.0	0.5	0.0	5.5	1.5
20	8.0	7.0	2.5	1.0	0.5	0.5	1.0	1.0	0.5	0.0	5.0	3.0
21	8.0	6.5	2.5	1.0	0.5	0.5	1.0	0.5	0.5	0.0	6.0	2.0
22	6.5	5.0	1.5	0.5	0.5	0.5	1.0	0.5	0.5	0.5	6.0	3.0
23	5.5	4.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.5	1.5
24	6.5	5.0	1.0	0.0	0.5	0.5	1.0	0.5	0.5	0.5	5.5	2.5
25	7.0	6.5	1.0	0.0	0.5	0.5	1.0	0.5	1.0	0.5	6.0	1.5
26	7.0	5.5	4.5	1.0	0.5	0.5	1.0	0.5	1.5	0.5	7.5	2.5
27	6.0	4.5	7.0	4.5	0.5	0.5	0.5	0.5	2.0	1.0	9.0	4.5
28	5.0	3.5	6.0	2.5	0.5	0.5	0.5	0.0	1.5	0.5	10.0	6.5
29	5.0	3.5	2.0	0.0	0.5	0.5	0.0	0.0	---	---	14.0	9.0
30	5.0	4.0	1.0	0.0	0.5	0.5	0.0	0.0	---	---	15.5	11.0
31	5.5	4.5	---	---	0.5	0.5	0.0	0.0	---	---	13.5	9.0
MONTH	15.0	3.5	7.0	0.0	1.0	0.0	1.0	0.0	2.0	0.0	15.5	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.0	17.5	10.5	21.5	19.0	24.0	19.0	23.5	21.0	23.5	20.5
2	11.5	8.0	15.5	14.5	19.0	15.5	23.5	19.0	22.5	18.5	23.5	21.0
3	12.0	9.5	18.0	13.0	18.5	13.5	22.5	18.5	23.0	18.5	23.5	21.0
4	10.5	8.5	15.5	14.0	19.5	14.0	21.5	19.5	24.5	20.5	22.5	19.0
5	9.5	7.0	19.0	14.5	18.0	16.5	25.0	20.5	24.0	21.5	23.0	19.5
6	7.0	5.0	20.5	17.0	16.5	14.0	27.0	22.0	23.0	22.0	22.0	20.0
7	6.0	4.0	21.0	15.5	15.5	12.5	27.5	23.0	22.0	19.5	21.5	18.0
8	7.5	4.0	17.5	12.5	14.0	11.5	25.5	23.0	23.0	21.5	21.5	18.0
9	8.5	2.5	14.0	10.5	15.0	12.5	25.0	22.5	23.5	21.0	22.0	18.5
10	9.5	5.0	14.5	9.5	17.0	12.0	25.0	21.0	23.0	21.5	22.0	19.0
11	15.5	8.0	16.5	9.5	17.5	13.0	25.0	22.0	24.5	21.5	20.0	17.5
12	18.0	11.5	16.0	11.0	16.0	14.5	25.0	22.5	23.0	21.0	18.5	15.5
13	18.5	13.0	18.5	13.5	18.0	14.0	26.5	22.5	22.0	20.5	17.5	16.5
14	18.5	14.0	20.0	14.5	21.0	16.5	25.5	21.5	23.5	21.0	18.5	17.5
15	16.5	11.0	19.5	13.5	21.5	17.0	25.0	21.5	23.0	19.5	18.5	15.5
16	13.5	11.5	20.5	14.5	21.5	17.5	26.5	21.0	22.5	19.5	17.0	15.5
17	16.0	10.5	21.5	16.5	23.0	14.0	25.5	22.0	23.0	21.0	18.5	17.0
18	16.0	12.5	23.0	18.5	21.5	18.5	26.5	22.0	21.0	18.5	19.5	14.0
19	18.5	13.5	23.5	18.5	23.0	18.5	24.0	21.5	19.0	16.5	20.0	18.5
20	20.5	15.5	23.5	18.0	21.5	18.5	26.0	22.5	19.5	15.5	19.0	17.5
21	20.5	16.5	23.5	18.5	22.5	17.5	25.0	23.5	18.0	17.0	17.5	16.0
22	18.5	17.0	24.0	19.5	21.5	17.0	24.0	21.0	19.0	17.5	17.5	15.5
23	17.0	15.0	23.5	20.5	21.0	16.5	23.0	19.0	19.5	17.0	18.0	15.5
24	14.5	11.5	23.0	20.5	21.0	18.0	23.0	18.5	18.5	17.0	18.0	16.5
25	12.0	10.5	24.0	14.0	22.5	18.5	23.0	20.5	19.0	15.0	19.0	17.0
26	12.0	9.5	23.5	18.5	23.5	19.0	21.5	19.0	18.5	15.0	20.0	17.5
27	14.5	8.0	23.0	18.0	23.0	19.0	21.0	17.0	22.0	17.5	18.5	16.5
28	13.0	6.5	23.5	18.0	22.5	20.5	21.5	16.5	23.5	20.0	16.5	15.5
29	13.5	7.0	22.5	18.5	23.5	19.0	20.5	19.0	23.5	21.5	15.5	13.5
30	15.5	8.0	22.0	18.0	21.0	19.0	23.0	19.0	24.0	21.0	16.5	14.0
31	---	---	22.5	18.0	---	---	23.0	19.5	23.0	20.5	---	---
MONTH	20.5	2.5	24.0	9.5	23.5	11.5	27.5	16.5	24.5	15.0	23.5	13.5
YEAR	27.5	0.0										

03092460 WEST BRANCH MAHONING RIVER BELOW MICHAEL J. KIRWAN DAM, AT WAYLAND, OH

LOCATION.--Lat 41°09'25", long 81°04'19", in T.3 N., R.6 W., Portage County, Hydrologic Unit 05030103, on right bank 200 ft (61 m) upstream from bridge on Wayland Road, 0.4 mi (0.6 km) downstream from Michael J. Kirwan Dm, and 0.2 mi (0.3 km) south of Wayland.

DRAINAGE AREA.--81.7 mi^2 (212 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1969 published as "West Branch Mahoning River below West Branch Dam, at Wayland."

GAGE.--Water-stage recorder. Datum of gage is 926.44 ft (282.379 m) above mean sea level, levels by Corps of Engineers. Prior to October 1971 at datum 0.89 ft (0.271 m) higher.

REMARKS.--Records good. Flow completely regulated by Michael J. Kirwan Reservoir (see station 03092450).

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--9 years, 104 ft^3/s (2.945 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,380 ft^3/s (39.1 m^3/s) Feb. 25, 1971, gage height, 11.82 ft (3.603 m) present datum; minimum daily, 2.5 ft^3/s (0.071 m^3/s) Apr. 9, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, , 156 ft^3/s (4.42 m^3/s) Nov. 30, gage height, 4.56 ft (1.390 m); minimum daily, 21 ft^3/s (0.59 m^3/s) Mar. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	114	150	140	62	24	22	23	112	106	102	23
2	69	113	151	141	62	24	45	23	99	105	106	23
3	69	113	150	140	62	24	27	23	99	115	106	23
4	69	112	146	139	61	28	24	24	98	133	106	23
5	69	112	149	140	60	25	24	24	99	132	106	22
6	71	112	146	139	60	24	23	24	100	132	99	22
7	72	112	150	138	60	23	23	23	99	135	72	22
8	72	112	147	139	60	23	23	24	99	137	42	22
9	72	112	145	139	60	24	23	24	93	137	29	22
10	72	111	144	137	59	24	23	24	85	137	29	22
11	71	111	146	136	59	24	23	24	85	137	29	22
12	71	111	143	136	59	29	23	24	85	137	31	22
13	72	110	146	136	62	41	23	24	92	138	28	23
14	73	109	143	136	61	25	23	24	106	132	27	24
15	73	109	141	136	51	23	23	24	113	125	27	23
16	74	109	141	136	41	21	23	64	113	126	27	26
17	73	108	141	93	33	21	23	112	114	127	27	25
18	73	108	141	102	23	47	23	112	109	127	26	23
19	74	108	140	102	23	24	23	112	102	128	26	23
20	74	108	141	99	23	25	23	112	102	119	25	23
21	75	107	144	96	23	23	23	112	102	112	25	23
22	83	107	141	95	23	24	24	112	102	111	25	23
23	94	106	141	95	34	23	27	112	103	110	24	23
24	97	107	142	95	62	22	26	112	112	117	24	29
25	96	106	139	81	34	22	24	119	128	124	24	26
26	104	106	141	62	27	22	24	127	128	110	24	45
27	113	106	142	62	27	22	24	126	128	110	24	78
28	113	106	140	62	25	25	24	126	128	109	24	86
29	112	124	141	62	---	23	23	126	118	109	24	95
30	112	151	139	62	---	22	23	126	107	109	24	95
31	115	---	142	62	---	22	---	125	---	108	23	---
TOTAL	2546	3340	4453	3438	1296	773	729	2191	3160	3794	1335	981
MEAN	82.1	111	144	111	46.3	24.9	24.3	70.7	105	122	43.1	32.7
MAX	115	151	151	141	62	47	45	127	128	138	106	95
MIN	69	106	139	62	23	21	22	23	85	105	23	22

CAL YR 1976 TOTAL 37312 MEAN 102 MAX 474 MIN 38
WTR YR 1977 TOTAL 28036 MEAN 76.8 MAX 151 MIN 21

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03092460 WEST BRANCH MAHONING RIVER BELOW MICHAEL J. KIRWAN DAM, AT WAYLAND, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
15...	1615	22	415	7.6	6.0	11.8	94	1.9	140	66	37	12
JUL												
11...	1700	139	390	7.6	20.0	8.9	97	2.4	130	58	35	10

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
15...	24	3.2	92	0	75	3.7	61	39	.1	3.4	225	.50
JUL												
11...	18	2.9	86	0	71	3.5	53	32	.1	2.3	196	.54

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
15...	.00	.12	.03	2	10	12	30	5	100	.0	50	4.2
JUL												
11...	.00	.02	.01	2	<10	6	10	11	60	.0	0	6.4

03092500 WEST BRANCH MAHONING RIVER NEAR NEWTON FALLS, OH

LOCATION.--Lat 41°10'18", long 81°01'16", in T.3 N., R.6 W., Portage County, Hydrologic Unit 05030103, on right bank 250 ft (76 m) downstream from bridge on Newton Falls Road, 2.5 mi (4.0 km) southwest of Newton Falls, 6 mi (10 km) upstream from mouth, and 5 mi (8 km) downstream from Michael J. Kirwan Dam.

DRAINAGE AREA.--96.3 mi² (249 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1926 to current year.

REVISED RECORDS.--WSP 973: 1926-30, 1933, 1934(M), 1936-38, 1939(M), 1940. WSP 1385: 1929(M), 1945. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 912.2 ft (278.04 m) above mean sea level, Corps of Engineers bench mark. Prior to Aug. 30, 1929, nonrecording gage at site 75 ft (23 m) upstream at same datum.

REMARKS.--Records good. Flow regulated by Michael J. Kirwan Reservoir (see station 03092450) since December 1966.

AVERAGE DISCHARGE.--51 years, 98.0 ft³/s (2.775 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,340 ft³/s (236 m³/s) Jan. 22, 1959, gage height, 13.60 ft (4.145 m); minimum daily, 3.0 ft³/s (0.085 m³/s) Sept. 19, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 596 ft³/s (16.9 m³/s) Feb. 24, gage height, 4.97 ft (1.515 m); minimum daily, 22 ft³/s (0.62 m³/s) Aug. 27, 29, 30, Sept. 5-12, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	120	139	131	70	45	34	30	123	106	90	23
2	71	112	139	130	69	38	218	34	102	99	93	24
3	71	111	170	131	70	36	208	36	100	102	93	25
4	71	111	132	129	70	61	70	37	100	125	93	23
5	71	109	134	131	69	74	77	42	100	125	93	22
6	71	109	132	131	69	45	52	34	105	125	92	22
7	71	109	148	129	67	39	42	31	100	126	80	22
8	71	109	146	129	72	35	39	30	100	129	47	22
9	72	109	135	130	69	34	35	28	98	126	26	22
10	74	111	132	130	69	34	33	28	84	125	26	22
11	72	111	137	127	69	33	33	28	82	125	28	22
12	72	111	137	127	72	42	32	28	82	125	37	22
13	71	109	137	127	75	274	31	28	86	127	28	23
14	71	109	132	128	90	88	30	28	102	122	25	34
15	71	109	128	128	65	57	29	28	113	112	24	27
16	71	107	128	129	50	42	29	46	113	112	23	36
17	71	107	128	86	44	34	29	121	114	116	27	52
18	71	106	130	149	38	263	29	123	118	115	25	34
19	71	106	129	110	34	132	29	123	102	121	23	27
20	72	106	138	110	30	81	30	121	98	117	23	25
21	74	106	144	110	28	74	36	121	90	100	25	24
22	77	107	136	110	26	67	33	120	98	104	39	23
23	91	107	132	110	81	66	71	120	104	97	31	22
24	96	107	134	110	391	47	106	120	127	98	25	22
25	100	106	130	80	274	38	62	123	127	138	24	65
26	100	107	130	70	110	34	45	136	127	122	23	50
27	111	107	133	70	84	32	40	136	126	99	22	86
28	109	107	130	70	64	68	36	136	132	96	23	83
29	109	114	132	70	---	85	35	132	131	95	22	95
30	109	141	129	70	---	47	32	129	104	96	22	94
31	116	---	132	70	---	38	---	132	---	95	23	---
TOTAL	2519	3300	4193	3462	2319	2083	1605	2409	3188	3520	1275	1093
MEAN	81.3	110	135	112	82.8	67.2	53.5	77.7	106	114	41.1	36.4
MAX	116	141	170	149	391	274	218	136	132	138	93	95
MIN	71	106	128	70	26	32	29	28	82	95	22	22

CAL YR 1976 TOTAL 42051 MEAN 115 MAX 955 MIN 36
WTR YR 1977 TOTAL 30966 MEAN 84.8 MAX 391 MIN 22

03092500 WEST BRANCH MAHONING RIVER NEAR NEWTON FALLS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAR 15...	1730	51	390	7.4	9.0	10.9	94	2.2	130	65	34	11
JUL 11...	1945	132	385	7.7	20.5	8.6	94	2.4	140	65	36	11

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 15...	21	3.4	80	0	66	5.1	63	36	.1	5.7	214	.58
JUL 11...	19	2.9	86	0	71	2.7	54	32	.1	2.3	200	.51

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 15...	.01	.06	.04	2	10	12	110	8	20	.0	50	1.8
JUL 11...	.00	.01	.02	2	10	7	10	2	50	.0	0	7.3

03093000 EAGLE CREEK AT PHALANX STATION, OH

LOCATION.--Lat 41°15'40", long 80°57'16", Trumbull County, Hydrologic Unit 05030103, on right bank 75 ft (23 m) downstream from county road bridge, 1 mi (2 km) north of Phalanx Station, 2 mi (3 km) downstream from Tinkers Creek, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--97.6 mi² (253 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1926 to September 1934, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 953: 1938-41. WSP 1385: 1927-30, 1931-32(M), 1934, 1938-41(P). WSP 1555: 1928(M), 1929. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 887.42 ft (270.485 m) above mean sea level, adjustment of 1912, levels by Mahoning Valley Sanitary District. Prior to Sept. 14, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Low flow flightly regulated by mill several miles upstream from station.

AVERAGE DISCHARGE.--48 years, 106 ft³/s (3.002 m³/s), 14.75 in/yr (375 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,700 ft³/s (190 m³/s) Jan. 22, 1959, gage height, 13.12 ft (3.999 m); minimum daily, 0.9 ft³/s (0.025 m³/s) Aug. 4, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	1100	*2780	78.7	*11.97	3.648	Apr. 3	1200	1470	41.6	10.52	3.206
Mar. 19	1030	1380	39.1	10.46	3.188						

Minimum daily discharge, 13 ft³/s (0.37 m³/s) June 28, Sept. 7, 9-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	108	20	30	24	228	120	79	15	68	26	20
2	28	72	19	28	24	137	238	72	15	69	19	27
3	23	48	19	28	24	118	1180	95	15	29	17	31
4	21	39	19	28	24	154	560	94	17	20	16	27
5	21	33	19	27	24	306	350	195	17	17	15	22
6	19	32	19	26	24	238	355	162	21	15	26	18
7	21	31	55	27	24	137	242	109	27	16	159	13
8	24	28	127	27	24	108	197	77	21	52	113	16
9	26	27	92	27	24	93	160	62	23	44	58	13
10	43	36	59	26	30	90	139	54	42	26	39	13
11	41	46	83	26	44	79	131	50	26	18	108	17
12	32	49	115	26	65	74	112	42	23	15	94	15
13	31	42	70	26	118	574	97	37	20	28	105	21
14	26	39	50	26	191	729	87	42	17	40	59	167
15	23	33	42	26	193	292	76	41	19	21	66	173
16	23	27	40	26	157	179	69	35	15	17	38	125
17	21	25	38	26	131	120	66	37	17	24	26	232
18	21	25	36	26	118	300	73	32	55	35	25	168
19	27	26	35	26	107	1050	78	29	50	27	19	98
20	24	25	54	26	95	487	65	31	26	150	17	57
21	33	25	124	26	81	485	60	32	18	60	21	50
22	40	24	80	26	72	353	56	27	16	114	172	45
23	36	21	60	26	146	399	110	22	15	54	157	40
24	39	19	50	26	668	276	357	17	15	29	63	38
25	102	19	42	28	2340	180	337	20	16	62	38	42
26	85	26	38	30	1050	128	237	19	21	177	28	45
27	58	50	36	28	484	104	207	17	17	68	24	39
28	42	56	34	26	354	162	153	16	13	29	25	34
29	33	40	32	25	---	364	114	15	23	27	22	27
30	33	30	31	24	---	258	93	16	33	27	18	27
31	58	---	31	24	---	167	---	17	---	36	21	---
TOTAL	1079	1101	1569	823	6660	8369	6119	1593	668	1414	1636	1660
MEAN	34.8	36.7	50.6	26.5	238	270	204	51.4	22.3	45.6	52.7	55.3
MAX	102	108	127	30	2340	1050	1180	195	55	177	172	232
MIN	19	19	19	24	24	74	56	15	13	15	15	13
CFSM	.36	.38	.52	.27	2.44	2.77	2.09	.53	.23	.47	.54	.57
IN.	.41	.42	.60	.31	2.54	3.19	2.33	.61	.25	.54	.62	.63

CAL YR 1976 TOTAL 41826 MEAN 114 MAX 2750 MIN 12 CFSM 1.17 IN 15.94
WTR YR 1977 TOTAL 32689 MEAN 89.6 MAX 2340 MIN 13 CFSM .92 IN 12.46

03093000 EAGLE CREEK AT PHALANX STATION, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA+MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 17...	1015	119	323	7.6	8.0	9.6	81	2.2	110	54	30	8.2
JUL 12...	1125	14	445	7.8	23.0	7.2	83	2.7	180	44	49	13

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 17...	17	2.8	67	0	55	2.7	49	32	.1	7.3	180	.59
JUL 12...	18	2.8	161	0	132	4.1	36	26	.2	8.3	233	.33

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 17...	.01	.08	.06	1	10	5	170	0	150	.0	70	--
JUL 12...	.01	.06	.13	3	20	58	120	3	340	.0	0	8.7

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OH

LOCATION.--Lat 41°14'22", long 80°52'56", Trumbull County, Hydrologic Unit 05030103, on left bank 10 ft (3 m) upstream from Ohio Edison Company diversion dam, 30 ft (9 m) upstream from Duck Creek, and 330 ft (101 m) upstream from gaging station at bridge on Leavitt Road in Leavittsburg.

DRAINAGE AREA.--542 mi² (1,404 km²).

PERIOD OF RECORD.--Water years 1952-53, July 1967 to September 1968 (published as "at Leavittsburg"), water years 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1967 to current year.
pH: July 1967 to current year.
WATER TEMPERATURES: July 1967 to current year.
DISSOLVED OXYGEN: July 1967 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. See records of daily discharge for gaging station at Leavittsburg (station 03094000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 780 micromhos May 27, 1969; minimum, 107 micromhos July 12, 1976.
pH: Maximum, 8.5 units Aug. 5, 1968; minimum, 5.2 units Jan. 8, 1973.
WATER TEMPERATURES: Maximum, 28.0°C June 29, 30, 1952; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Dec. 31, 1972, Jan. 1-3, 1973; minimum, 4.2 mg/L June 12, 13, 197

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 660 micromhos Feb. 18; minimum, 219 micromhos Mar. 19.
pH: Maximum, 8.1 units Nov. 25; minimum, 6.6 units Feb. 26.
WATER TEMPERATURES: Maximum, 26.5°C July 20; minimum, 0.0°C on many days during winter period.
DISSOLVED OXYGEN: Maximum recorded, 12.0 mg/L Nov. 25, Jan. 9, 10, 13; minimum recorded, 4.8 mg/L Aug. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	1145	470	330	7.2	9.5	8.4	77	2.8	110	66	30	8.3
JUL 12...	0945	301	425	7.7	22.5	6.1	69	3.2	150	77	42	12

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	20	3.5	53	0	43	5.4	53	33	.1	7.0	181	.68
JUL 12...	20	3.7	94	0	77	3.0	67	33	.1	2.8	227	.56

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.01	.13	.09	1	10	5	140	3	190	.0	10	7.0
JUL 12...	.01	.10	.10	2	10	23	30	3	200	.0	10	9.1

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	416	378	456	434	515	476	---	---	563	540	338	285
2	411	387	467	446	---	---	---	---	555	537	324	300
3	416	389	455	435	---	---	---	---	545	539	372	324
4	419	392	462	449	---	---	---	---	543	528	408	369
5	416	392	462	449	---	---	---	---	545	536	408	353
6	414	405	462	446	---	---	503	473	546	531	386	345
7	417	410	465	452	---	---	510	488	546	521	372	332
8	420	416	476	458	---	---	510	482	560	524	398	366
9	428	420	476	456	---	---	527	479	554	527	414	395
10	434	416	467	455	---	---	548	513	546	525	437	390
11	435	410	470	456	---	---	516	503	575	536	453	420
12	438	410	476	462	---	---	510	501	618	575	509	453
13	426	405	477	458	---	---	540	489	659	618	518	285
14	432	411	482	453	---	---	486	476	641	602	273	243
15	429	416	482	453	---	---	485	476	642	599	308	266
16	438	423	486	456	---	---	501	477	606	581	363	311
17	444	428	479	468	---	---	506	494	656	584	392	354
18	449	435	488	473	---	---	507	476	660	563	414	327
19	452	431	495	471	---	---	543	498	575	543	332	219
20	443	438	504	482	---	---	540	494	579	549	270	237
21	452	441	503	486	---	---	540	528	566	545	288	252
22	456	447	509	497	---	---	548	519	596	551	420	290
23	461	437	515	494	---	---	558	509	603	498	426	340
24	450	441	525	507	---	---	507	501	495	290	464	408
25	453	440	518	503	---	---	515	507	282	230	486	450
26	477	452	513	497	---	---	519	503	254	221	503	465
27	485	456	509	489	---	---	531	512	293	252	510	470
28	468	438	510	506	---	---	573	531	326	296	503	435
29	461	431	527	504	---	---	579	557	---	---	434	371
30	453	444	528	500	---	---	584	569	---	---	410	377
31	449	443	---	---	---	---	579	560	---	---	434	413
MONTH	485	378	528	434	---	---	584	473	660	221	518	219

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	456	428	416	377	423	411	437	411	452	432	470	446
2	453	353	405	395	434	423	450	416	464	432	468	452
3	339	263	414	386	453	423	449	422	461	435	473	452
4	327	276	410	401	456	410	450	428	458	432	479	444
5	368	321	410	377	438	431	438	399	453	434	479	450
6	423	369	392	372	452	438	426	395	453	440	474	453
7	449	420	404	380	458	428	423	398	450	425	480	452
8	459	426	426	389	452	434	431	408	465	393	482	455
9	458	419	432	411	456	446	434	404	386	332	480	455
10	456	432	435	405	467	419	437	413	417	356	480	462
11	452	416	437	399	455	411	437	410	449	420	489	453
12	441	393	435	399	461	446	431	410	468	447	497	470
13	---	---	420	396	453	417	426	411	473	447	488	476
14	---	---	425	395	444	410	438	401	467	453	489	465
15	419	384	434	393	450	408	432	408	476	452	477	456
16	429	404	432	387	443	405	432	411	474	458	477	470
17	434	395	423	386	435	408	434	416	474	458	471	449
18	431	401	416	384	437	407	435	405	485	459	476	465
19	426	396	398	366	438	410	432	417	485	471	479	462
20	422	393	396	362	443	408	444	410	485	452	488	474
21	425	399	395	366	447	422	444	411	482	459	---	---
22	422	408	390	366	449	413	461	432	479	452	---	---
23	429	402	390	363	447	417	447	429	457	435	---	---
24	402	345	390	368	444	414	458	441	462	449	---	---
25	347	312	392	369	434	402	456	323	476	449	---	---
26	351	324	425	378	435	399	461	425	482	446	---	---
27	365	333	437	395	435	404	453	307	465	443	453	435
28	387	357	432	392	426	416	414	398	456	438	565	455
29	407	369	429	401	434	414	447	417	456	444	524	467
30	413	372	431	405	447	417	447	429	465	449	489	456
31	---	---	428	402	---	---	452	426	470	445	---	---
MONTH	459	263	437	362	467	399	461	323	485	332	565	435
YEAR	660	219										

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.4	7.5	7.4	7.8	7.6	---	---	7.7	7.5	7.1	6.8
2	7.6	7.5	7.6	7.5	---	---	---	---	7.6	7.4	7.2	7.0
3	7.7	7.5	7.7	7.5	---	---	---	---	7.5	7.5	7.4	7.2
4	7.7	7.5	7.6	7.5	---	---	---	---	7.5	7.3	7.4	7.4
5	7.7	7.6	7.7	7.6	---	---	---	---	7.7	7.5	7.5	7.4
6	7.6	7.6	7.7	7.6	---	---	7.5	7.3	7.7	7.5	7.5	7.3
7	7.7	7.6	7.7	7.6	---	---	7.7	7.6	7.7	7.4	7.4	7.3
8	7.7	7.6	7.7	7.6	---	---	7.9	7.5	7.8	7.4	7.4	7.3
9	7.7	7.6	7.7	7.6	---	---	7.7	7.4	7.7	7.3	7.5	7.4
10	7.6	7.5	7.7	7.6	---	---	7.7	7.5	7.5	7.0	7.6	7.3
11	7.7	7.6	7.8	7.6	---	---	7.7	7.6	7.4	7.2	7.6	7.5
12	7.8	7.6	7.8	7.6	---	---	7.7	7.6	7.5	7.2	7.6	7.5
13	7.7	7.6	7.8	7.6	---	---	7.7	7.5	7.6	7.3	7.6	7.1
14	7.7	7.6	7.8	7.6	---	---	7.7	7.4	7.5	7.3	7.1	6.9
15	7.6	7.5	7.8	7.7	---	---	7.8	7.5	7.5	7.3	7.2	6.9
16	7.5	7.4	7.8	7.7	---	---	7.8	7.8	7.6	7.1	7.4	7.2
17	7.6	7.4	7.9	7.8	---	---	7.8	7.7	7.6	7.3	7.5	7.3
18	7.6	7.5	8.0	7.9	---	---	7.8	7.6	7.6	7.0	7.5	7.2
19	7.6	7.5	7.9	7.9	---	---	7.8	7.6	7.2	6.8	7.3	6.9
20	7.5	7.5	7.9	7.9	---	---	7.8	7.5	7.3	7.0	7.1	7.0
21	7.5	7.5	7.9	7.9	---	---	7.7	7.6	7.4	7.1	7.1	6.9
22	7.6	7.5	8.0	7.9	---	---	7.7	7.5	7.5	7.1	7.4	7.1
23	7.7	7.5	8.0	7.7	---	---	7.8	7.5	7.5	7.3	7.4	7.3
24	7.6	7.5	8.0	7.9	---	---	7.6	7.5	7.4	6.9	7.6	7.4
25	7.5	7.5	8.1	7.9	---	---	7.6	7.5	6.9	6.7	7.7	7.5
26	7.6	7.4	8.0	7.9	---	---	7.7	7.5	6.8	6.6	7.7	7.5
27	7.6	7.5	7.9	7.8	---	---	7.7	7.6	7.0	6.8	7.7	7.6
28	7.7	7.5	7.9	7.7	---	---	7.8	7.6	7.1	7.0	7.7	7.5
29	7.7	7.5	7.8	7.6	---	---	7.8	7.7	---	---	7.5	7.4
30	7.7	7.6	7.8	7.6	---	---	7.8	7.7	---	---	7.6	7.4
31	7.6	7.5	---	---	---	---	7.7	7.6	---	---	7.6	7.5
MONTH	7.8	7.4	8.1	7.4	---	---	7.9	7.3	7.8	6.6	7.7	6.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.5	7.6	7.4	7.7	7.6	7.4	7.3	7.6	7.4	7.5	7.3
2	7.6	7.5	7.6	7.4	7.7	7.6	7.4	7.3	7.6	7.4	7.5	7.3
3	---	---	7.6	7.3	7.7	7.5	7.4	7.2	7.6	7.5	7.5	7.4
4	---	---	7.6	7.5	7.7	7.6	7.3	7.3	7.5	7.3	7.5	7.4
5	---	---	7.6	7.4	7.7	7.6	7.4	7.3	7.5	7.4	7.5	7.2
6	---	---	7.6	7.4	7.7	7.6	7.5	7.3	7.5	7.4	7.5	7.4
7	---	---	7.7	7.4	7.7	7.6	7.5	7.3	7.4	7.3	7.5	7.3
8	---	---	7.6	7.4	7.7	7.7	7.5	7.3	7.4	7.2	7.5	7.3
9	---	---	7.6	7.5	7.8	7.7	7.4	7.3	7.2	6.9	7.5	7.4
10	---	---	7.6	7.5	7.8	7.6	7.5	7.3	7.2	7.0	7.5	7.4
11	---	---	7.6	7.4	7.7	7.6	7.5	7.3	7.4	7.1	7.6	7.5
12	---	---	7.6	7.4	7.7	7.6	7.5	7.3	7.4	7.3	7.5	7.5
13	7.9	7.6	7.5	7.4	7.7	7.5	7.6	7.3	7.4	7.3	7.5	7.5
14	7.7	7.4	7.5	7.4	7.7	7.6	7.7	7.4	7.4	7.3	7.6	7.5
15	7.6	7.4	7.5	7.3	7.7	7.5	7.5	7.4	7.5	7.3	7.5	7.5
16	7.6	7.3	7.6	7.4	7.8	7.6	7.5	7.4	7.5	7.4	7.5	7.4
17	7.6	7.4	7.6	7.4	7.8	7.6	7.4	7.3	7.5	7.3	7.4	7.3
18	7.7	7.5	7.5	7.3	7.7	7.6	7.5	7.3	7.6	7.4	7.5	7.3
19	7.7	7.5	7.5	7.4	7.7	7.6	7.4	7.3	7.5	7.5	7.5	7.3
20	7.6	7.4	7.5	7.3	7.7	7.5	7.5	7.3	7.5	7.4	7.5	7.4
21	7.6	7.4	7.6	7.4	7.7	7.6	7.4	7.1	7.5	7.4	---	---
22	7.5	7.4	7.6	7.4	7.8	7.6	7.4	7.3	7.5	7.4	---	---
23	7.4	7.3	7.6	7.4	7.8	7.6	7.4	7.2	7.5	7.4	---	---
24	7.4	7.3	7.5	7.4	7.8	7.6	7.4	7.2	7.5	7.4	---	---
25	7.3	7.2	7.5	7.4	7.8	7.4	7.4	7.3	7.5	7.4	---	---
26	7.4	7.3	7.7	7.4	7.8	7.3	7.5	7.4	7.5	7.3	---	---
27	7.4	7.3	7.8	7.6	7.6	7.3	7.4	7.2	7.5	7.3	7.4	7.2
28	7.4	7.4	7.7	7.6	7.6	7.3	7.3	7.2	7.5	7.3	7.5	7.4
29	7.6	7.4	7.7	7.6	7.5	7.3	7.4	7.3	7.6	7.4	7.6	7.4
30	7.6	7.4	7.7	7.6	7.5	7.3	7.4	7.3	7.5	7.3	7.6	7.6
31	---	---	7.7	7.6	---	---	7.5	7.4	7.5	7.4	---	---
MONTH	7.9	7.2	7.8	7.3	7.8	7.3	7.7	7.1	7.6	6.9	7.6	7.2
YEAR	8.1	6.6										

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	13.5	7.0	6.0	0.5	0.0	---	---	0.5	0.5	2.5	0.5
2	16.0	15.0	6.0	5.5	---	---	---	---	1.0	0.5	2.0	1.0
3	17.0	16.0	7.5	6.0	---	---	---	---	0.5	0.5	2.0	1.0
4	17.0	15.5	6.5	5.5	---	---	---	---	0.5	0.5	3.5	2.0
5	17.0	16.0	6.0	5.5	---	---	---	---	0.5	0.5	3.5	3.0
6	17.0	16.5	5.5	5.0	---	---	1.0	0.0	0.5	0.5	4.0	2.5
7	17.0	16.0	5.5	4.5	---	---	0.5	0.0	0.5	0.0	4.0	3.0
8	16.0	15.0	5.0	4.0	---	---	0.5	0.0	0.5	0.0	4.5	3.0
9	15.0	14.0	4.5	3.5	---	---	0.5	0.0	1.0	0.5	6.5	4.0
10	14.0	13.0	5.0	4.0	---	---	0.0	0.0	1.0	0.5	7.5	6.0
11	13.5	12.5	5.0	3.5	---	---	0.0	0.0	1.0	0.5	8.5	7.0
12	14.0	12.5	4.5	4.0	---	---	0.0	0.0	1.0	0.5	9.5	8.0
13	14.5	13.5	4.5	4.0	---	---	0.5	0.0	0.5	0.5	10.0	9.5
14	14.0	13.5	4.0	3.5	---	---	0.5	0.5	1.0	0.5	10.5	9.0
15	13.5	13.0	4.0	3.0	---	---	0.5	0.5	0.5	0.5	10.0	8.0
16	13.0	12.5	4.0	3.0	---	---	0.5	0.0	1.0	0.5	10.5	9.5
17	12.5	11.0	4.5	1.5	---	---	0.0	0.0	0.5	0.0	10.0	9.0
18	11.0	10.0	4.0	3.5	---	---	0.5	0.0	1.0	0.0	8.5	5.0
19	10.5	9.5	4.0	3.5	---	---	0.5	0.0	1.0	0.5	5.5	3.5
20	10.5	10.0	4.0	3.5	---	---	0.5	0.0	0.5	0.0	4.5	3.5
21	10.5	9.5	3.5	3.0	---	---	0.5	0.0	0.5	0.5	5.5	3.0
22	9.5	8.5	3.0	2.5	---	---	0.5	0.0	0.5	0.0	6.0	5.0
23	8.5	8.0	3.5	2.5	---	---	0.5	0.0	0.0	0.0	5.5	4.5
24	9.0	8.0	2.5	2.0	---	---	0.5	0.5	0.5	0.0	5.5	4.0
25	9.0	9.0	2.5	2.0	---	---	0.5	0.5	1.0	0.0	5.5	4.0
26	9.0	8.0	3.0	2.0	---	---	0.5	0.0	2.0	0.5	6.5	4.5
27	8.0	7.0	4.5	3.0	---	---	0.5	0.0	1.5	0.5	6.5	6.0
28	7.5	6.5	4.5	4.0	---	---	0.5	0.0	1.0	0.5	8.5	6.5
29	8.0	6.0	3.5	1.5	---	---	0.5	0.0	---	---	11.5	8.5
30	7.5	6.5	0.5	0.0	---	---	0.5	0.0	---	---	13.0	11.5
31	7.5	7.0	---	---	---	---	0.5	0.0	---	---	11.0	10.0
MONTH	17.0	6.0	7.5	0.0	---	---	1.0	0.0	2.0	0.0	13.0	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.0	15.5	13.0	19.5	18.5	22.5	21.0	24.5	23.5	23.5	22.5
2	10.5	9.0	15.5	15.0	19.0	17.0	22.5	21.0	24.0	23.0	24.0	23.0
3	11.5	10.0	17.0	15.0	18.5	16.5	23.0	21.0	24.0	23.0	24.0	23.0
4	10.5	9.5	16.5	16.0	18.5	16.5	23.0	22.0	24.5	23.0	23.5	22.0
5	10.0	9.0	17.5	16.0	18.0	17.5	23.5	22.0	25.5	24.5	22.5	22.0
6	8.5	7.0	18.5	17.0	17.5	16.5	25.0	23.0	25.0	24.5	23.0	22.0
7	7.5	7.0	20.0	18.5	16.5	15.0	26.0	24.5	24.5	24.0	22.5	21.5
8	8.5	7.0	18.5	16.5	15.0	14.0	25.5	24.5	24.5	23.5	22.0	21.0
9	9.0	7.5	16.5	14.5	15.0	14.0	25.0	24.0	24.0	23.0	22.0	21.5
10	9.0	8.0	15.0	13.5	16.0	14.0	25.0	23.5	24.5	23.5	22.5	22.0
11	10.5	8.5	15.5	13.5	17.0	15.0	24.0	22.5	25.5	24.0	22.0	21.0
12	12.5	10.0	16.0	14.5	16.5	16.0	24.5	23.0	25.5	24.0	20.0	19.5
13	13.0	12.0	17.5	15.5	18.0	16.0	25.5	23.0	25.0	24.0	19.5	19.5
14	14.0	13.0	18.5	16.0	18.5	17.0	26.0	24.0	24.5	23.5	20.0	19.0
15	14.5	12.5	19.5	17.0	19.5	17.5	25.5	24.5	24.5	23.0	19.0	18.5
16	14.0	13.0	19.5	17.5	20.0	18.5	26.0	24.5	24.0	23.0	19.0	18.5
17	14.0	13.0	20.5	18.0	20.5	19.0	26.0	24.5	24.5	23.5	20.0	19.0
18	14.5	13.0	21.5	19.5	21.0	19.0	26.5	25.0	23.5	22.5	21.0	19.5
19	15.5	14.0	22.0	20.5	21.5	19.5	26.0	25.0	23.0	21.0	21.5	20.0
20	17.0	15.0	22.5	21.0	21.0	20.0	26.5	24.5	21.5	20.5	21.0	20.5
21	18.5	16.5	23.0	21.0	21.5	20.0	26.0	25.0	21.0	20.5	---	---
22	18.0	17.5	23.0	21.5	21.0	19.5	25.5	24.5	21.5	20.0	---	---
23	18.0	16.0	23.0	22.0	20.5	19.0	24.5	23.0	21.0	20.0	---	---
24	15.5	13.5	23.0	22.5	20.0	19.0	24.0	22.5	21.0	20.5	---	---
25	13.5	11.5	23.5	22.0	21.0	19.5	23.5	23.0	21.5	19.0	---	---
26	11.5	11.0	22.5	20.5	22.5	20.0	23.5	22.0	21.0	19.5	---	---
27	13.0	10.5	20.5	19.0	22.5	20.5	23.0	21.0	23.0	20.5	20.5	19.5
28	12.5	12.0	20.5	18.5	22.0	21.0	22.0	20.5	25.0	22.5	20.0	19.0
29	13.5	11.5	19.5	18.5	22.5	20.5	22.0	21.0	25.5	24.5	19.0	18.0
30	14.0	11.5	19.5	18.5	21.5	21.0	23.5	21.5	25.5	23.5	19.5	17.5
31	---	---	19.5	18.5	---	---	24.5	22.5	23.5	22.5	---	---
MONTH	18.5	7.0	23.5	13.0	22.5	14.0	26.5	20.5	25.5	19.0	24.0	17.5
YEAR	26.5	0.0										

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.4	10.0	9.2	11.9	11.6	---	---	9.8	9.6	10.2	9.8
2	8.0	7.5	10.3	10.0	---	---	---	---	9.8	9.5	11.3	10.0
3	8.0	7.8	10.3	10.1	---	---	---	---	9.6	9.5	11.3	11.2
4	8.0	7.7	10.3	10.0	---	---	---	---	9.6	9.5	11.2	10.8
5	8.0	7.7	10.4	10.1	---	---	---	---	9.5	9.3	10.9	10.7
6	7.8	7.5	10.6	10.2	---	---	11.5	11.2	9.3	9.1	11.2	10.9
7	7.7	7.2	10.5	10.2	---	---	11.8	11.3	9.5	9.1	11.1	10.9
8	7.8	7.3	10.8	10.1	---	---	11.8	11.1	9.6	9.3	11.1	10.9
9	8.0	7.5	---	---	---	---	12.0	11.2	9.6	9.4	11.0	10.8
10	7.8	7.6	---	---	---	---	12.0	11.7	9.6	9.4	10.8	10.4
11	8.3	7.8	10.9	10.1	---	---	11.7	11.1	9.6	9.5	10.5	10.1
12	8.5	8.1	11.2	10.9	---	---	11.7	11.1	9.6	9.3	10.3	9.7
13	8.3	8.0	11.3	11.1	---	---	12.0	11.7	9.5	9.2	9.4	8.1
14	8.1	7.8	11.3	11.1	---	---	11.9	11.5	9.3	9.1	8.2	7.7
15	8.3	7.6	11.3	11.2	---	---	11.7	11.2	9.8	9.3	8.8	8.2
16	8.3	7.9	11.4	11.1	---	---	11.4	10.8	9.9	9.6	9.6	8.8
17	8.7	7.9	11.6	11.3	---	---	11.1	10.6	10.0	9.7	9.8	9.3
18	8.9	8.4	11.4	11.2	---	---	11.4	11.0	10.0	9.3	9.9	9.5
19	9.1	8.6	11.4	11.2	---	---	11.5	10.4	9.6	9.1	9.5	8.2
20	8.9	8.5	11.7	11.3	---	---	10.8	10.2	9.4	8.9	9.5	8.9
21	8.8	8.4	11.4	11.2	---	---	10.4	10.1	9.1	8.9	---	---
22	9.0	8.5	11.6	11.2	---	---	10.4	10.1	9.7	9.0	---	---
23	9.5	8.9	11.7	11.5	---	---	10.5	10.2	10.0	9.5	---	---
24	9.5	9.3	11.9	11.7	---	---	10.5	10.3	11.1	10.1	---	---
25	9.0	8.6	12.0	11.7	---	---	10.8	10.5	10.7	8.9	---	---
26	9.3	8.9	11.8	11.4	---	---	10.5	9.9	10.5	8.4	---	---
27	9.9	9.3	11.4	11.0	---	---	10.4	9.7	10.0	8.3	---	---
28	10.3	9.8	10.9	10.4	---	---	10.1	9.7	10.0	9.5	---	---
29	10.4	10.0	10.9	10.2	---	---	---	---	---	---	---	---
30	10.3	10.1	11.6	10.9	---	---	---	---	---	---	---	---
31	10.1	9.4	---	---	---	---	---	---	---	---	10.2	9.0
MONTH	10.4	7.2	12.0	9.2	---	---	12.0	9.7	11.1	8.3	11.3	6.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	10.3	7.9	6.6	7.3	6.7	6.7	5.9	8.0	6.5	7.2	6.2
2	---	---	7.0	5.9	7.0	6.2	6.8	5.6	7.8	6.4	6.8	6.1
3	---	---	6.1	5.3	6.8	5.9	6.9	5.9	8.4	6.5	6.6	5.8
4	---	---	7.1	5.4	7.3	6.4	6.6	5.8	8.1	6.3	6.6	5.8
5	---	---	7.5	6.1	7.1	6.4	7.1	5.9	7.6	6.0	6.5	5.8
6	---	---	7.4	5.9	6.4	5.9	7.4	6.2	6.9	5.9	6.9	5.9
7	---	---	7.6	5.7	6.8	5.9	7.2	6.0	6.2	5.5	6.9	6.1
8	---	---	7.2	5.6	7.6	6.7	6.9	5.8	6.5	5.8	6.9	6.5
9	---	---	7.0	4.9	---	---	6.7	5.3	6.0	5.5	7.1	6.4
10	---	---	7.4	5.5	---	---	7.3	5.7	5.5	5.0	6.8	5.2
11	---	---	9.9	6.6	---	---	7.2	6.0	6.6	5.2	7.1	6.2
12	---	---	9.8	8.9	---	---	7.5	6.0	6.9	5.5	7.2	6.8
13	10.5	9.8	9.3	8.4	---	---	7.9	6.2	6.4	5.7	7.0	6.6
14	10.8	9.1	8.7	8.0	---	---	8.1	6.3	6.3	5.6	6.9	6.5
15	10.5	9.6	8.7	7.7	---	---	7.6	6.1	7.1	4.8	7.5	6.7
16	9.9	9.2	8.7	7.7	---	---	7.2	6.0	7.6	6.3	7.5	7.2
17	10.0	8.9	8.6	7.8	---	---	7.0	6.1	6.9	5.9	7.5	7.3
18	10.0	9.2	8.4	7.3	---	---	6.7	5.4	7.3	6.0	7.5	7.2
19	9.6	8.9	8.2	7.0	---	---	6.3	5.4	7.2	6.4	7.3	7.0
20	9.2	8.2	8.3	6.9	---	---	5.9	5.1	7.4	6.5	7.2	6.9
21	8.6	7.7	8.4	6.9	---	---	6.3	5.1	7.2	6.7	---	---
22	7.9	6.9	8.3	7.0	---	---	6.3	5.4	7.4	6.4	---	---
23	7.0	6.4	8.2	7.0	---	---	6.7	5.6	7.4	6.7	---	---
24	7.4	6.7	7.9	6.8	---	---	6.6	5.9	7.1	6.8	---	---
25	7.9	7.4	7.7	6.5	---	---	6.8	6.3	7.2	6.5	---	---
26	8.5	7.9	7.8	6.5	---	---	7.1	6.2	7.2	6.7	---	---
27	9.9	8.4	7.8	6.7	8.0	6.8	6.8	5.9	7.6	6.6	8.0	7.9
28	9.7	9.2	7.8	6.9	7.4	6.6	6.6	5.8	7.5	6.5	8.2	7.8
29	9.1	6.8	7.7	6.9	7.1	6.3	6.7	6.3	8.0	6.3	8.5	8.0
30	8.0	7.3	7.5	6.7	6.9	5.9	6.8	6.4	7.5	6.3	8.6	8.3
31	---	---	7.4	6.7	---	---	7.4	6.2	7.4	6.2	---	---
MONTH	11.0	6.4	9.9	5.3	8.0	5.9	8.1	5.1	8.4	4.8	8.6	5.2
YEAR	12.0	4.8										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03094000 MAHONING RIVER AT LEAVITTSBURG, OH

LOCATION.--Lat 41°14'21", long 80°52'51", in T.4 N., R.4 W., Trumbull County, Hydrologic Unit 05030103, on right bank at upstream side of Leavitt Road Bridge at Leavittsburg, 300 ft (91 m) downstream from Duck Creek and 1.2 mi (1.9 km) downstream from Eagle Creek.

DRAINAGE AREA.--575 mi² (1,489 km²).

PERIOD OF RECORD.--October 1940 to current year. Prior to June 1941 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 871.25 ft (265.557 m) above mean sea level, adjustment of 1912. Prior to July 2, 1941, nonrecording gage, and July 2, 1941, to July 22, 1952, water-stage recorder, at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Berlin Lake, 25 mi (40 km) upstream, beginning in 1942, by Milton Reservoir, 17 mi (27 km) upstream, and by Michael J. Kirwan Reservoir, 20 mi (32 km) upstream on West Branch, beginning in 1966 (see stations 03090000, 03091000 and 03092450). Diversion upstream from station from Berlin Lake for part of municipal supply of Mahoning Valley Sanitary District (see station 03090500). Water-quality data collected at this site 1943 to 1971.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

AVERAGE DISCHARGE.--37 years, 560 ft³/s (15.86 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft3/s (575 m³/s) Jan. 22, 1959, gage height, 19.37 ft (5.904 m); minimum daily, 60 ft³/s (1.70 m³/s) July 6, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913 reached a stage of about 24 ft (7 m). Flood of Jan. 25 or 26, 1937 reached a stage of 17.8 ft (5.43 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,140 ft³/s (146 m³/s) Feb. 25, gage height, 11.55 ft (3.520 m); minimum daily, 130 ft³/s (3.68 m³/s) Jan. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	769	457	309	140	643	882	356	275	345	264	279
2	407	721	456	309	150	423	1350	342	307	349	268	287
3	418	661	422	308	160	349	3490	359	314	286	272	302
4	411	633	466	290	170	411	2180	374	321	282	289	296
5	408	618	449	280	170	713	1180	446	321	289	293	288
6	407	608	451	270	150	636	1490	458	342	300	314	286
7	404	607	563	260	140	419	1310	390	342	310	490	341
8	406	604	648	250	140	336	1450	343	335	328	633	348
9	429	598	599	250	140	297	2010	319	366	321	292	348
10	457	604	529	250	170	277	2100	314	338	289	242	312
11	453	612	541	250	220	262	2020	299	314	286	293	306
12	433	616	586	250	271	277	1330	293	307	300	338	308
13	402	610	559	250	357	1490	1040	292	303	333	332	324
14	384	604	507	250	452	1960	1000	294	331	320	272	478
15	377	605	356	250	528	904	521	294	349	296	258	534
16	373	722	317	250	495	534	363	291	349	288	260	470
17	375	951	315	240	434	375	342	272	345	312	263	649
18	371	984	311	240	388	1110	345	285	508	321	297	592
19	397	981	308	240	342	2680	356	289	490	318	277	460
20	410	976	343	230	305	1530	353	286	338	391	272	485
21	417	971	406	230	273	1220	370	289	300	323	285	530
22	428	964	390	220	258	1370	363	282	286	324	417	374
23	511	957	363	220	440	1360	535	268	279	285	484	345
24	556	954	351	210	2160	1220	1130	256	317	247	357	339
25	642	951	325	210	4600	978	1050	259	338	332	312	688
26	665	948	317	200	2820	865	705	265	338	522	296	697
27	657	741	318	200	1370	810	599	266	331	313	290	756
28	630	501	313	180	941	943	494	268	335	245	286	643
29	614	457	309	150	---	1440	421	272	478	245	283	607
30	607	457	288	130	---	1240	383	268	386	254	278	594
31	678	---	299	130	---	976	---	275	---	266	277	---
TOTAL	14455	21985	12862	7306	18184	28048	31162	9566	10283	9620	9784	13266
MEAN	466	733	415	236	649	905	1039	309	343	310	316	442
MAX	678	984	648	309	4600	2680	3490	458	508	522	633	756
MIN	328	457	288	130	140	262	342	256	275	245	242	279

CAL YR 1976 TOTAL 243846 MEAN 664 MAX 5330 MIN 233
WTR YR 1977 TOTAL 186521 MEAN 511 MAX 4600 MIN 130

03095500 MOSQUITO CREEK BELOW MOSQUITO CREEK DAM, NEAR CORTLAND, OH

LOCATION.--Lat 41°17'59", long 80°45'31", in T.5 N., R.3 W., Trumbull County, Hydrologic Unit 05030103, on right bank 100 ft (30 m) downstream from Mosquito Creek Dam, 0.8 mi (1.3 km) upstream from Confusion Run, and 2.5 mi (4.0 km) southwest of Cortland.

DRAINAGE AREA.--97.5 mi^2 (253 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1926 to September 1929 (published as "near Cortland"), May 1943 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 873.98 ft (266.389 m) above mean sea level (Corps of Engineers bench mark). Prior to Aug. 23, 1943, nonrecording gage, and Aug. 23, 1943 to Feb. 14, 1951, water-stage recorder, at site 900 ft (274 m) downstream at datum 6.63 ft (2.021 m) lower.

REMARKS.--Records good. Flow completely regulated by Mosquito Creek Lake beginning 1943 (see station 03095000). Diversion at lake outlet for municipal supply of city of Warren since May 1954; diversion not included in figures of daily discharge.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

AVERAGE DISCHARGE.--37 years, 86.1 ft^3/s (2.438 m^3/s) (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft^3/s (53.5 m^3/s) Jan. 19, 1929, gage height, 11.5 ft (3.51 m), from floodmark, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 196 ft^3/s (5.55 m^3/s) Apr. 26, 27, 28, 29, 30, May 1, 2, 3, 4, 8, 9, 10, gage height, 2.32 ft (0.707 m) (affected by erratic gate openings); minimum daily, 13 ft^3/s (0.37 m^3/s) Oct. 1, Jan. 18-27, Jan. 30 to Feb. 7, Feb. 9-12, June 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	47	167	160	13	16	21	193	17	16	88	83
2	15	47	167	160	13	16	21	193	17	15	97	83
3	15	66	167	160	13	16	21	196	17	15	97	83
4	15	88	167	160	13	16	21	193	17	32	97	84
5	15	88	167	160	13	15	21	193	17	48	97	84
6	15	88	165	117	13	15	22	193	17	48	95	84
7	15	88	165	83	13	15	22	193	17	33	95	84
8	15	88	165	83	14	16	22	196	17	18	89	84
9	15	88	165	83	13	16	18	196	17	18	84	83
10	15	86	165	83	13	16	17	146	17	18	84	83
11	15	86	165	83	13	16	18	76	17	17	84	84
12	15	86	165	83	13	16	18	57	16	19	84	71
13	15	86	165	83	14	16	18	37	13	19	84	58
14	15	86	165	83	14	16	20	18	21	48	84	58
15	15	107	165	83	14	16	21	18	29	77	84	58
16	15	126	165	83	14	16	18	18	29	77	84	58
17	15	126	165	46	14	17	16	17	29	64	84	58
18	15	126	165	13	14	21	16	16	24	51	84	58
19	15	126	162	13	14	21	19	19	17	74	84	58
20	15	126	162	13	14	21	21	20	17	57	84	58
21	16	126	162	13	14	21	21	20	17	17	84	58
22	16	126	162	13	14	21	18	20	19	20	84	58
23	16	126	162	13	14	22	16	19	25	22	83	58
24	16	126	162	13	15	21	17	19	48	28	83	58
25	16	124	162	13	15	22	61	19	57	27	83	58
26	16	124	162	13	16	20	152	19	57	21	83	57
27	16	124	162	13	16	20	196	18	57	21	83	57
28	33	124	162	14	15	20	196	18	38	78	83	58
29	47	145	162	14	---	20	196	17	17	79	84	58
30	47	167	162	13	---	19	196	17	15	79	84	58
31	47	---	160	13	---	20	---	14	---	79	84	---
TOTAL	584	3167	5084	1977	388	559	1460	2388	732	1235	2681	2032
MEAN	18.8	106	164	63.8	13.9	18.0	48.7	77.0	24.4	39.8	86.5	67.7
MAX	47	167	167	160	16	22	196	196	57	79	97	84
MIN	13	47	160	13	13	15	16	14	13	15	83	57
CFSM	.19	1.09	1.68	.65	.14	.19	.50	.79	.25	.41	.89	.69
IN.	.22	1.21	1.94	.75	.15	.21	.56	.91	.28	.47	1.02	.78
(+)	21.1	20.4	20.5	21.4	23.5	21.2	21.0	22.4	23.0	24.4	23.7	24.0

CAL YR 1976 TOTAL 26215.0 MEAN 71.6 MAX 358 MIN 8.6 CFSM .73 IN 10.00 (+) 21.6
WTR YR 1977 TOTAL 22287.0 MEAN 61.1 MAX 196 MIN 13 CFSM .63 IN 8.50 (+) 22.2

03095500 MOSQUITO CREEK BELOW MOSQUITO CREEK DAM, NEAR CORTLAND, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	0930	16	285	7.5	6.5	10.8	88	3.3	100	42	28	7.2
JUL 12...	0830	20	270	7.6	25.0	6.6	78	3.4	86	35	25	5.8

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	17	3.3	70	0	57	3.5	37	26	.1	1.3	155	.36
JUL 12...	14	3.1	63	0	52	2.5	33	24	.1	.9	137	.02

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.01	.29	.03	0	10	0	30	2	150	.0	10	6.5
JUL 12...	.01	.15	.10	2	20	5	10	14	130	.0	0	4.8

03098000 MAHONING RIVER AT YOUNGSTOWN, OH

LOCATION.--Lat 41°06'40", long 80°40'23", Mahoning County, Hydrologic Unit 05030103, on left bank 400 ft (122 m) upstream from Bridge Street bridge in Youngtown, and 0.8 mi (1.3 km) upstream from Mill Creek.

DRAINAGE AREA.--898 mi² (2,326 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Records for May 1903 to July 1906, published in WSP 98, 128, 169, and 205, are unreliable and should not be used.

REVISED RECORDS.--WSP 623: 1924(M). WSP 1907: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 826.53 ft (251.926 m) above mean sea level, adjustment of 1912, levels by Mahoning Valley Sanitary District. Prior to Nov. 16, 1926, nonrecording gage at site 400 ft (122 m) downstream at same datum.

REMARKS.--Records good. Water diverted upstream from station for municipal supply for city of Youngtown. Some sewage returned to river upstream from station. Water also diverted upstream and downstream from station by a private company for industrial use, some of which is returned to river upstream from station. Flow regulated by Berlin Lake, 48 mi (77 km) upstream, beginning in 1942, by Milton Reservoir, 40 mi (64 km) upstream, by Michael J. Kirwan Reservoir, 43 mi (69 km) upstream on West Branch, beginning in 1966, by Mosquito Creek Lake, 22 mi (35 km) upstream, beginning in 1943, by Meander Creek Reservoir, 11 mi (18 km) upstream, beginning in 1929, and by reservoir on Squaw Creek, 5 mi (8 km) upstream.

COOPERATION.--Two discharge measurements furnished by the Corps of Engineers.

AVERAGE DISCHARGE.--56 years, 852 ft³/s (24.13 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s (498 m³/s) Jan. 25, 1937, gage height, 14.92 ft (4.548 m); maximum gage height, 18.62 ft (5.675 m) Jan. 22, 1959 (backwater from Mill Creek); minimum daily discharge, 30 ft³/s (0.85 m³/s) Aug. 16, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913 reached a stage of 26.5 ft (8.08 m), discharge, 42,500 ft³/s (1,200 m³/s), estimated by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,300 ft³/s (178 m³/s) Apr. 3; maximum gage height, 10.44 ft (3.182 m) Apr. 3 (backwater from Mill Creek); minimum daily discharge, 200 ft³/s (5.66 m³/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	418	1050	678	484	200	1010	1380	692	306	585	400	424
2	430	993	699	496	230	657	3260	692	318	478	389	502
3	466	867	598	502	240	508	6150	699	340	372	406	484
4	460	832	671	508	250	598	4670	755	334	323	412	454
5	454	825	706	496	260	1010	2890	832	350	367	460	442
6	454	804	699	490	230	993	2550	874	490	383	598	436
7	460	790	1060	448	220	657	2110	748	378	572	1240	472
8	454	790	1090	398	220	490	1890	650	345	591	1260	514
9	598	783	1010	398	210	418	2390	598	591	442	776	520
10	611	783	860	399	260	398	2500	572	430	383	559	496
11	565	790	853	398	392	396	2440	508	350	367	478	448
12	526	797	909	397	399	406	1850	430	312	383	727	454
13	484	797	909	397	637	2520	1290	400	306	585	692	578
14	442	776	825	399	671	3530	1220	398	312	430	533	1370
15	424	776	699	406	720	2350	790	340	340	424	442	965
16	412	874	565	399	713	909	490	340	367	478	424	944
17	406	1130	552	394	611	598	418	312	741	604	514	1150
18	406	1280	539	391	539	2560	400	312	2010	466	448	1070
19	418	1280	533	340	460	4070	617	323	936	572	442	797
20	472	1250	598	360	400	3260	650	306	502	559	424	1300
21	526	1250	699	360	396	2300	630	301	367	611	508	986
22	484	1250	706	350	397	2210	526	296	323	494	944	643
23	533	1240	643	330	1050	2070	1190	296	306	424	888	533
24	706	1230	578	350	3350	1850	2470	306	323	328	664	552
25	811	1220	559	360	5390	1420	2090	312	430	843	514	2020
26	853	1230	552	350	6200	1170	1580	296	412	762	472	1610
27	790	1090	533	300	2510	1060	1240	306	400	520	454	1180
28	755	832	539	290	1570	1570	1050	301	636	345	442	965
29	734	678	526	230	---	2430	867	301	860	384	448	825
30	734	650	490	205	---	2090	762	296	637	424	448	790
31	916	---	484	205	---	1760	---	301	---	384	436	---
TOTAL	17202	28937	21362	11830	28725	47268	52360	14093	14746	14883	17842	23924
MEAN	555	965	689	382	1026	1525	1745	455	492	480	576	797
MAX	916	1280	1090	508	6200	4070	6150	874	2010	843	1260	2020
MIN	406	650	484	205	200	396	400	296	306	323	389	424

CAL YR 1976 TOTAL 369545 MEAN 1010 MAX 9260 MIN 304
WTR YR 1977 TOTAL 293172 MEAN 803 MAX 6200 MIN 200

03098000 MAHONING RIVER AT YOUNGSTOWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
16...	1715	832	450	7.4	12.5	8.7	81	6.3	130	82	39	8.7
JUN												
27...	1600	406	540	7.2	28.5	5.8	74	3.6	160	84	45	11

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
16...	27	4.8	62	0	51	3.9	70	48	.3	7.6	237	.85
JUN												
27...	30	7.4	90	0	74	9.1	89	51	.5	4.4	283	.64

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
16...	.04	.78	.23	2	10	9	930	27	200	.0	140	5.8
JUN												
27...	.11	1.7	.19	3	10	9	150	42	330	.0	90	11

03099500 MAHONING RIVER AT LOWELLVILLE, OH

LOCATION.--Lat 41°02'12", long 80°32'11", in T.1 N., R.1 W., Mahoning County, Hydrologic Unit 05030103, on left bank 100 ft (30 m) upstream from First Street Bridge at Lowellville, 1 mi (2 km) upstream from Ohio-Pennsylvania State line, and 3 mi (5 km) downstream from Yellow Creek.

DRAINAGE AREA.--1,073 mi^2 (2,779 km^2).

PERIOD OF RECORD.--October 1942 to current year. Prior to August 1943 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1555: 1946(M), 1952(M), 1955(M), 1956. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 796.84 ft (242.877 m) above mean sea level, adjustment of 1912. Prior to Oct. 26, 1944, nonrecording gage at site 300 ft (91 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by 5 flood control reservoirs at points 21 mi (34 km) to 58 mi (93 km) upstream (see REMARKS for station 03098000), and by reservoirs on Squaw Creek, 15 mi (24 km) upstream, on Dry Run, 9 mi (14 km) upstream, and on Yellow Creek, 5 mi (8 km) upstream. Water-quality data collected at this site 1949 to 1973.

AVERAGE DISCHARGE.--35 years, 1,065 ft^3/s (30.16 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 21,000 ft^3/s (595 m^3/s) Jan. 21, 1959, gage height, 14.43 ft (4.398 m); minimum daily, 155 ft^3/s (4.39 m^3/s) Feb. 5, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17.8 ft (5.43 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,740 ft^3/s (248 m^3/s) Apr. 3, gage height, 8.41 ft (2.563 m); minimum daily, 305 ft^3/s (8.64 m^3/s) Feb. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586	1260	803	594	320	1490	1820	1220	347	930	530	522
2	530	1210	830	602	305	1090	4650	1180	340	704	514	634
3	586	1040	740	610	305	840	8230	1250	354	522	514	668
4	570	970	758	634	368	1000	6130	1330	361	490	506	562
5	562	970	812	650	442	1500	4300	1480	368	498	586	522
6	554	950	812	626	442	1530	3150	1520	970	490	767	522
7	562	930	1350	602	418	1160	2780	1380	578	758	3170	546
8	554	920	1330	506	382	920	2490	1250	498	920	2190	594
9	803	910	1240	498	361	776	2670	1160	1050	731	1380	594
10	840	920	1070	498	396	740	2930	1140	1060	570	1040	570
11	749	920	1050	498	538	704	2900	1110	704	530	794	514
12	668	930	1110	482	713	731	2660	980	474	530	960	522
13	618	920	1120	474	1170	3310	2020	890	474	686	870	830
14	554	900	1030	498	1170	3840	1830	860	482	554	722	2190
15	522	890	950	538	1150	3030	1630	776	482	506	602	1220
16	498	940	767	514	1060	1480	1160	713	498	546	562	1350
17	490	1150	731	482	900	1140	960	668	1120	1040	713	1570
18	482	1360	713	466	812	3410	870	610	4410	940	578	1380
19	490	1370	686	466	767	5080	880	578	2140	910	546	1140
20	570	1360	749	466	695	4130	990	538	1200	920	514	2190
21	704	1350	910	474	626	3010	940	506	900	812	530	1380
22	618	1350	920	466	659	2760	850	482	530	1160	1140	980
23	634	1330	830	466	1560	2720	1180	450	482	880	990	767
24	860	1330	731	466	4400	2570	3110	474	490	586	812	812
25	1000	1330	686	466	6520	2000	2700	506	562	2170	634	2580
26	1040	1350	695	474	5910	1480	2310	434	570	1370	570	2230
27	950	1270	686	474	3010	1360	1950	410	522	990	546	1540
28	890	1010	695	474	2060	1890	1700	389	960	570	530	1220
29	850	821	686	458	---	2700	1500	375	1390	594	578	1020
30	850	794	634	389	---	2480	1360	361	1030	668	586	950
31	1150	---	610	340	---	2280	---	354	---	546	522	---
TOTAL	21334	32755	26734	15651	37459	63151	72650	25374	25346	24121	25496	32119
MEAN	688	1092	862	505	1338	2037	2422	819	845	778	822	1071
MAX	1150	1370	1350	650	6520	5080	8230	1520	4410	2170	3170	2580
MIN	482	794	610	340	305	704	850	354	340	490	506	514

CAL YR 1976 TOTAL 444164 MEAN 1214 MAX 11500 MIN 426
WTR YR 1977 TOTAL 402190 MEAN 1102 MAX 8230 MIN 305

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OH

LOCATION.--Lat 41°01'53", long 80°31'10", Mahoning County, Hydrologic Unit 05030103, on left bank 800 ft (244 m) upstream from Ohio-Pennsylvania State line, just below Lowellville, 0.9 mi (1.4 km) downstream from gaging station at Lowellville, and 3.9 mi (6.3 km) downstream from Yellow Creek.

DRAINAGE AREA.--1,075 mi² (2,784 km²).

PERIOD OF RECORD.--January 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1967 to current year.
pH: January 1967 to current year.
WATER TEMPERATURES: January 1967 to current year.
DISSOLVED OXYGEN: January 1967 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. See records of daily discharge for gaging station at Lowellville (station 03099500).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,500 micromhos Feb. 11-13, 1977; minimum, 204 micromhos July 13, 1976.
pH: Maximum, 9.9 units Jan. 26, 1969; minimum, 3.0 units Jan. 24, 1967.
WATER TEMPERATURES: Maximum, 39.0°C June 29, 1971; minimum, 1.5°C Feb. 26, 1977.
DISSOLVED OXYGEN: Maximum, 14.2 mg/L Mar. 25, 1970; minimum, 0.0 mg/L June 1, 1975, June 17, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,500 micromhos Feb. 11-13; minimum, 306 micromhos Feb. 26.
pH: Maximum, 8.2 units Apr. 1; minimum, 6.7 units Feb. 22.
WATER TEMPERATURES: Maximum, 36.5°C July 16; minimum, 1.5°C Feb. 26.
DISSOLVED OXYGEN: Maximum, 12.3 mg/L Mar. 1; minimum, 0.0 mg/L June 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
09...	1700	658	700	7.2	13.5	8.7	83	8.4	200	130	56	14
JUN												
27...	1340	542	680	7.5	30.0	4.1	54	4.8	190	96	54	14

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
09...	46	7.0	88	0	72	8.9	120	86	.5	8.3	382	1.1
JUN												
27...	42	9.0	118	0	97	6.0	110	66	.5	6.2	360	.65

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
09...	.08	3.4	.71	3	30	20	120	33	380	.0	180	9.0
JUN												
27...	.21	3.8	.45	3	<10	12	90	34	350	.0	70	13

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03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	614	573	564	542	648	618	660	623	873	828	530	471
2	632	597	590	552	617	581	647	611	933	864	570	491
3	612	590	605	576	597	576	677	627	948	894	623	564
4	599	581	597	582	608	579	702	639	1060	911	797	603
5	600	579	615	579	599	569	672	641	1100	938	747	675
6	611	581	594	570	614	566	666	642	975	896	684	633
7	612	582	605	551	825	627	734	651	902	882	671	626
8	653	576	582	552	645	600	749	705	947	879	695	654
9	612	476	605	564	624	603	708	683	911	878	717	686
10	545	503	614	593	599	593	734	699	1100	888	767	646
11	576	522	606	570	---	---	759	684	1500	1070	776	735
12	606	564	599	560	642	611	714	686	1500	1370	771	743
13	606	582	591	557	624	584	743	690	1500	1370	758	590
14	704	588	593	564	647	587	743	717	1430	1210	584	435
15	684	654	596	564	632	602	759	716	1210	1150	555	443
16	693	653	599	566	650	629	740	717	1140	1020	566	536
17	681	647	590	540	672	630	734	704	1030	921	615	554
18	671	645	555	522	663	623	---	---	935	899	636	486
19	663	654	557	528	641	594	---	---	959	891	483	375
20	675	651	558	531	693	597	---	---	950	911	408	342
21	653	594	569	530	662	624	---	---	933	891	459	414
22	653	618	557	533	681	641	---	---	1050	906	473	446
23	669	618	561	533	666	638	---	---	978	825	536	467
24	656	561	570	519	659	624	---	---	806	561	561	531
25	603	579	615	546	635	608	---	---	552	350	774	536
26	618	566	587	549	722	617	---	---	345	306	626	572
27	648	591	615	555	711	675	---	---	438	344	632	605
28	638	602	602	564	683	647	---	---	483	438	621	566
29	636	600	710	594	690	656	---	---	---	---	602	564
30	611	582	753	623	710	648	---	---	---	---	570	534
31	597	524	---	---	659	635	872	831	---	---	548	533
MONTH	704	476	753	519	825	566	872	611	1500	306	797	342

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	599	540	599	554	746	717	677	606	668	645	708	662
2	573	449	602	579	756	711	663	647	683	657	693	648
3	461	384	603	569	756	704	696	653	695	644	656	612
4	393	354	611	585	723	693	717	690	690	660	666	639
5	468	395	612	585	722	681	746	704	680	627	666	632
6	488	407	597	584	681	500	726	707	665	537	672	632
7	515	402	615	573	680	660	720	642	552	432	671	648
8	531	509	597	566	726	669	662	593	501	440	662	633
9	525	507	617	564	710	567	659	633	563	491	671	647
10	533	513	618	585	704	629	684	644	600	552	674	644
11	540	510	624	591	734	680	720	680	639	566	666	633
12	554	515	651	617	734	689	710	657	645	554	653	621
13	588	542	680	647	774	717	720	663	614	582	666	477
14	582	546	695	675	764	728	693	668	623	603	569	419
15	617	549	710	680	756	716	695	650	654	618	582	546
16	650	602	740	692	747	731	762	687	678	650	597	561
17	687	638	752	714	765	434	663	512	669	605	579	552
18	708	668	763	720	498	401	726	530	669	627	596	561
19	729	668	747	714	513	446	692	569	674	644	618	587
20	666	564	771	731	597	518	678	612	693	671	612	426
21	662	605	785	749	626	567	680	627	681	639	596	552
22	693	659	770	732	687	618	666	615	630	546	666	596
23	686	548	764	737	737	680	663	639	593	530	654	605
24	548	483	762	714	758	725	675	630	630	593	674	560
25	492	464	1080	581	764	716	704	392	678	624	501	407
26	492	456	768	720	---	---	608	542	678	635	536	443
27	534	486	773	720	690	670	620	563	684	659	560	513
28	533	507	768	752	680	525	690	618	671	636	563	527
29	569	518	765	723	623	530	686	647	674	639	623	557
30	588	549	746	723	635	590	707	650	662	588	644	590
31	---	---	752	717	---	---	668	641	693	650	---	---
MONTH	729	354	1080	554	774	401	762	392	695	432	708	407
YEAR	1500	306										

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	7.5	7.2	7.5	7.2	7.8	7.5	7.8	7.6	7.7	7.5
2	---	---	7.4	7.1	7.5	7.3	7.6	7.5	7.6	7.5	7.8	7.6
3	---	---	7.3	6.9	7.4	7.3	7.6	7.4	7.6	7.4	7.7	7.4
4	---	---	7.4	7.2	7.5	7.2	7.6	7.5	7.6	7.4	7.7	6.9
5	---	---	7.5	7.3	7.4	7.3	7.6	7.5	7.6	7.4	7.7	7.2
6	---	---	7.4	7.1	7.5	7.3	7.6	7.5	7.5	7.5	7.7	7.2
7	---	---	7.5	7.2	7.4	7.1	7.6	7.3	7.6	7.4	7.8	7.5
8	---	---	7.6	7.3	7.4	7.2	7.7	7.5	7.5	7.3	7.8	7.4
9	---	---	7.4	7.1	7.5	7.3	7.7	7.5	7.5	7.4	7.7	7.1
10	---	---	7.2	7.1	7.4	7.2	8.1	7.6	7.6	7.4	7.3	7.2
11	---	---	7.3	7.0	---	---	7.6	7.5	7.7	7.4	7.3	6.9
12	---	---	7.5	6.8	7.2	7.0	7.6	7.5	7.6	7.4	7.5	7.2
13	---	---	7.6	7.2	7.4	7.2	7.6	7.3	7.5	7.5	7.6	7.4
14	---	---	7.3	7.2	7.4	6.8	7.6	7.3	7.9	7.5	7.6	7.3
15	7.2	7.1	7.4	7.2	7.4	7.0	7.5	7.3	7.9	7.8	7.9	7.6
16	7.5	7.2	7.3	7.1	7.4	7.2	7.6	7.5	7.8	7.6	7.9	7.6
17	7.6	7.5	7.3	7.1	7.4	6.9	7.7	7.5	7.8	7.3	7.6	7.5
18	7.6	7.3	7.3	7.2	7.3	7.1	---	---	7.9	7.7	7.8	7.4
19	7.4	7.3	7.7	7.0	7.5	7.3	---	---	7.9	7.7	7.8	7.5
20	7.3	7.1	7.3	7.0	7.5	7.4	---	---	7.8	7.6	7.5	7.3
21	7.5	7.1	7.3	7.1	7.6	7.4	---	---	7.8	7.5	7.8	7.5
22	7.5	7.1	7.5	6.9	7.5	7.4	---	---	7.6	6.7	7.5	7.3
23	---	---	7.4	7.1	7.5	7.1	---	---	7.8	7.1	7.5	7.2
24	---	---	7.4	7.2	7.4	7.2	---	---	8.1	7.8	7.7	7.3
25	---	---	7.6	7.1	7.5	7.5	---	---	8.0	7.5	7.6	7.4
26	---	---	7.4	7.1	7.6	7.3	---	---	7.7	7.4	7.6	7.4
27	---	---	7.4	7.0	7.6	7.5	---	---	7.8	7.5	7.6	7.5
28	7.3	7.0	7.4	7.0	7.5	7.3	---	---	7.7	7.5	7.7	7.5
29	7.3	7.2	7.5	7.0	7.5	7.1	---	---	---	---	7.9	7.5
30	7.5	7.2	7.5	7.3	7.5	7.2	---	---	---	---	7.9	7.4
31	7.4	7.3	---	---	7.5	7.3	7.7	7.7	---	---	7.7	7.2
MONTH	7.6	7.0	7.7	6.8	7.6	6.8	8.1	7.3	8.1	6.7	7.9	6.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	7.5	7.4	7.0	7.4	7.2	8.0	7.2	7.3	7.2	7.4	7.3
2	7.9	7.6	7.4	7.3	7.3	7.0	7.3	7.2	7.3	7.2	7.4	7.2
3	8.1	7.9	7.5	7.3	7.5	7.3	7.5	7.3	7.3	7.2	8.1	7.3
4	7.9	7.6	7.4	6.9	7.4	7.3	7.5	7.3	7.3	7.2	7.6	7.5
5	7.9	7.5	7.5	7.2	7.4	7.3	7.5	7.3	7.3	7.1	7.5	7.4
6	7.9	7.4	7.4	7.2	7.6	7.3	7.5	7.4	7.3	7.1	7.5	7.3
7	7.7	7.2	7.4	7.2	7.5	7.4	7.5	7.3	7.6	7.2	7.4	7.3
8	7.7	7.3	7.6	7.4	7.5	7.2	7.5	7.3	7.4	7.1	7.4	7.3
9	7.7	7.5	7.5	7.4	7.5	7.3	7.4	7.2	7.4	7.2	7.4	7.2
10	7.9	7.7	7.4	7.3	7.5	7.4	7.5	7.4	7.3	7.2	7.4	7.3
11	7.9	7.5	7.4	7.3	7.4	7.2	7.5	7.3	7.3	7.1	7.5	7.3
12	7.6	7.4	7.4	7.3	7.5	7.3	7.5	7.3	7.4	7.2	7.6	7.3
13	7.6	7.0	7.4	7.3	7.5	7.2	7.5	7.4	7.3	7.1	7.6	7.4
14	7.5	7.3	7.4	7.3	7.4	7.2	7.5	7.4	7.4	7.1	7.8	7.3
15	7.6	7.3	7.4	7.2	7.4	6.9	7.4	7.4	7.4	7.4	7.4	7.1
16	7.5	7.4	7.4	7.3	7.3	7.2	7.5	7.3	7.4	7.4	7.3	7.1
17	7.5	7.4	7.6	7.3	8.0	7.2	7.6	7.3	7.5	6.8	7.5	7.2
18	7.5	7.3	7.5	7.2	7.8	7.3	7.8	7.4	7.5	7.3	7.4	7.1
19	7.4	7.1	7.5	7.3	7.8	7.4	7.6	7.4	7.5	7.4	7.3	7.2
20	7.5	6.8	7.5	7.4	7.6	7.3	7.6	7.5	7.4	7.3	7.4	7.2
21	7.5	7.2	7.4	7.3	7.5	7.3	7.5	7.2	7.5	7.4	7.4	7.1
22	7.4	7.1	7.7	7.3	7.5	7.3	7.5	7.2	7.5	7.4	7.3	7.1
23	7.5	7.1	7.6	7.4	7.5	7.3	7.9	7.3	7.4	7.3	7.3	7.0
24	7.6	7.4	7.5	7.3	7.4	7.2	7.4	7.2	7.5	7.1	7.3	7.1
25	7.6	7.1	7.5	7.3	7.4	7.3	7.6	7.3	7.8	7.0	7.4	7.1
26	7.5	7.3	7.6	7.3	---	---	7.5	7.3	7.5	7.3	7.4	7.2
27	7.6	7.3	7.4	7.2	7.6	7.4	7.3	7.0	7.4	7.2	7.3	7.1
28	7.6	7.3	7.5	7.2	7.5	7.4	7.3	7.2	7.4	7.3	7.3	7.1
29	7.5	7.3	7.5	7.3	7.4	7.3	7.3	7.2	7.4	7.3	7.3	7.0
30	7.5	7.3	7.5	7.4	7.5	7.0	7.2	6.9	7.5	7.2	7.2	7.1
31	---	---	7.5	7.3	---	---	7.3	7.1	7.4	7.4	---	---
MONTH	8.2	6.8	7.7	6.9	8.0	6.9	8.0	6.9	7.8	6.8	8.1	7.0
YEAR	8.2	6.7										

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25.5	24.0	12.5	11.0	9.0	8.5	5.0	4.5	9.5	7.5	7.0	5.0
2	25.5	24.0	13.5	12.0	9.0	6.0	7.0	5.0	11.0	8.0	9.0	6.0
3	26.5	24.0	14.0	12.5	7.0	5.5	9.0	7.0	12.5	10.5	10.0	7.5
4	26.5	25.0	13.5	12.0	6.5	5.5	11.0	9.0	13.0	12.0	11.5	10.5
5	27.0	25.5	14.0	12.5	7.0	5.5	10.0	8.5	13.5	12.0	11.0	9.0
6	26.0	24.5	13.0	11.0	8.5	6.5	10.5	9.5	12.5	11.0	9.5	7.5
7	26.0	25.0	12.0	10.5	8.5	6.5	9.5	8.5	13.0	10.5	10.0	8.0
8	26.0	24.5	10.0	9.0	6.5	5.5	10.0	7.5	10.5	8.5	12.5	9.0
9	25.0	20.0	11.0	9.0	6.5	5.0	9.5	8.5	11.5	8.5	14.0	11.5
10	20.0	17.5	12.5	11.5	5.5	5.5	9.0	7.5	15.5	11.5	15.5	13.5
11	20.5	17.5	12.0	11.0	---	---	7.5	5.5	15.0	13.5	16.5	14.5
12	22.0	20.0	11.5	10.5	6.5	6.0	7.0	5.5	13.0	12.0	17.5	16.0
13	24.0	22.0	11.0	10.0	6.0	5.5	8.0	7.0	12.0	7.5	16.5	10.5
14	24.0	23.0	10.0	8.5	8.0	6.0	9.0	6.0	8.0	7.0	11.0	10.5
15	25.0	22.5	8.5	8.0	9.5	7.5	9.0	8.5	7.0	6.5	[illegible]	9.5
16	23.0	20.5	9.5	8.5	11.0	9.0	8.5	6.5	8.0	6.0	14.5	12.0
17	20.5	19.5	9.5	8.5	10.0	9.0	6.5	4.5	7.0	5.5	15.0	13.5
18	20.5	19.0	8.5	7.5	10.5	8.5	---	---	8.5	6.0	15.0	7.5
19	21.5	19.0	8.0	7.5	10.0	9.0	---	---	10.0	8.5	7.5	6.5
20	22.0	20.0	9.0	8.0	10.5	9.0	---	---	10.0	8.5	6.5	6.0
21	20.5	19.0	8.5	7.0	8.5	8.0	---	---	10.5	8.0	8.5	6.5
22	19.0	18.0	7.5	6.0	8.0	6.5	---	---	14.0	9.5	9.0	8.0
23	18.5	17.5	8.0	6.5	7.5	6.0	---	---	12.0	6.5	9.0	7.5
24	18.5	15.5	8.0	6.5	7.0	5.5	---	---	6.5	3.0	9.0	8.0
25	15.5	15.0	7.5	7.0	8.0	6.5	---	---	3.0	2.0	9.5	7.5
26	15.0	14.0	8.0	7.5	8.0	7.5	---	---	2.5	1.5	11.5	9.0
27	15.0	14.0	9.0	8.0	8.0	7.0	---	---	4.5	2.5	12.5	10.0
28	16.0	14.5	9.0	8.5	8.5	7.5	---	---	6.0	4.0	12.5	12.0
29	16.0	13.5	9.5	7.5	9.0	7.0	---	---	---	---	13.5	11.5
30	14.0	13.5	9.0	7.5	7.0	6.5	---	---	---	---	15.5	13.0
31	13.5	12.0	---	---	6.5	5.0	8.5	7.5	---	---	14.5	14.0
MONTH	27.0	12.0	14.0	6.0	11.0	5.0	11.0	4.5	15.5	1.5	17.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	13.5	21.5	18.0	32.0	30.5	30.0	27.0	30.5	29.0	34.5	31.5
2	15.0	11.0	22.0	21.0	30.5	28.5	29.5	27.5	31.5	27.5	34.5	31.5
3	11.5	10.5	24.5	21.0	31.0	26.0	30.5	27.5	33.0	29.0	31.5	29.5
4	11.5	11.0	22.5	22.0	30.5	26.5	30.0	28.5	35.0	31.5	31.5	29.5
5	12.0	10.5	24.5	22.0	29.0	26.5	33.5	29.5	34.5	32.0	32.0	30.0
6	11.0	10.0	25.5	22.5	26.5	20.0	34.5	31.0	32.5	29.0	32.0	29.5
7	10.5	9.5	25.0	23.5	24.5	21.5	35.0	31.5	29.0	23.5	33.0	29.5
8	10.5	9.0	24.0	21.5	25.5	22.5	33.5	31.5	26.0	24.0	32.5	30.5
9	10.5	9.0	21.5	20.0	23.5	20.5	33.5	31.5	28.5	26.0	32.0	30.0
10	10.5	9.5	23.0	20.0	24.0	19.0	33.0	30.5	30.5	28.0	31.5	29.0
11	13.5	10.0	25.0	21.0	26.0	22.5	34.0	31.0	32.0	29.0	29.0	27.0
12	15.5	13.0	25.5	22.0	25.0	24.0	35.0	31.5	31.0	29.0	28.0	26.0
13	19.5	15.5	27.0	24.0	28.0	24.0	33.5	32.0	30.5	29.0	29.0	25.0
14	20.0	18.0	27.5	25.5	28.5	25.5	34.0	31.0	29.5	28.5	24.0	21.5
15	20.0	17.0	28.5	25.5	31.0	26.0	35.0	32.0	30.5	27.5	23.5	22.5
16	20.0	18.0	30.5	26.5	31.5	28.0	36.5	33.5	31.5	29.0	23.5	22.5
17	21.5	18.5	32.5	28.0	31.0	22.5	33.5	29.5	31.0	29.5	23.5	22.0
18	23.0	20.5	33.0	30.0	22.0	19.5	32.5	29.0	30.5	29.0	23.5	22.5
19	25.0	21.5	34.5	31.0	23.0	20.5	32.5	30.5	30.5	28.5	25.0	23.0
20	25.0	21.5	35.0	31.5	25.5	22.5	34.5	31.0	30.5	28.0	25.0	21.5
21	25.5	22.5	34.5	31.5	27.0	24.0	34.5	32.0	29.0	28.0	24.0	22.5
22	26.5	25.0	34.0	31.5	28.0	25.5	32.0	29.5	27.5	24.5	25.0	23.5
23	26.0	20.0	35.5	32.0	31.0	26.0	31.5	28.5	28.0	24.5	26.5	24.5
24	19.5	16.0	36.0	33.5	30.5	28.0	31.5	28.5	28.0	26.5	27.0	25.0
25	16.0	15.5	35.5	29.5	31.0	28.5	30.5	24.0	28.0	26.0	23.5	21.0
26	15.5	14.0	34.0	32.0	---	---	28.5	24.5	29.0	26.0	22.0	20.5
27	17.0	14.0	33.5	30.0	31.5	30.5	29.0	25.5	31.0	27.5	23.5	21.5
28	16.5	16.0	33.0	30.0	30.5	27.5	29.5	26.0	33.0	30.5	23.0	21.5
29	19.0	16.0	32.0	29.5	28.5	26.0	30.0	29.0	34.0	31.5	22.5	21.0
30	19.5	16.5	32.0	29.0	29.0	26.0	30.0	28.0	33.0	30.5	23.5	21.5
31	---	---	32.5	29.5	---	---	32.0	29.5	32.5	31.0	---	---
MONTH	26.5	9.0	36.0	18.0	32.0	19.0	36.5	24.0	35.0	23.5	34.5	20.5
YEAR	36.5	1.5										

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.9	4.4	7.9	7.2	9.5	9.3	10.5	9.9	7.8	7.0	12.3	11.6
2	4.9	4.3	7.6	7.0	10.4	9.4	10.4	9.5	7.5	6.5	11.6	10.7
3	4.9	4.3	7.3	6.9	10.5	9.8	9.6	8.7	---	---	10.7	10.0
4	4.7	4.3	7.3	6.9	10.8	10.0	8.7	7.6	---	---	10.0	8.6
5	4.4	3.8	7.0	6.6	10.8	10.5	8.8	8.5	---	---	10.2	9.1
6	4.5	4.0	7.7	6.7	10.4	9.7	8.5	8.0	---	---	10.6	10.1
7	4.4	3.9	8.0	7.4	10.5	9.0	8.5	7.8	---	---	10.5	10.1
8	4.4	4.0	8.4	7.9	10.8	10.5	8.7	7.8	---	---	10.0	8.7
9	5.3	4.2	8.4	7.4	10.9	10.7	8.2	7.9	---	---	8.8	8.3
10	6.4	5.4	7.4	7.1	10.9	10.6	8.6	7.6	---	---	8.2	7.6
11	6.3	5.5	7.8	7.1	---	---	9.9	9.0	---	---	7.5	7.1
12	5.4	5.0	8.0	7.4	10.5	10.2	9.9	9.0	---	---	7.0	5.7
13	5.0	4.5	8.1	7.7	10.8	10.5	9.3	8.9	---	---	9.1	5.7
14	4.8	4.2	8.6	7.9	10.5	9.6	9.5	8.8	8.8	8.2	9.2	9.0
15	4.8	4.4	8.7	8.4	9.9	9.5	8.6	8.2	9.3	8.8	9.6	7.9
16	5.2	4.6	8.7	8.1	9.5	8.7	8.2	7.3	9.3	8.8	7.9	6.9
17	5.4	5.0	8.8	8.2	9.5	8.7	7.7	6.7	9.7	8.8	7.0	6.5
18	5.4	5.0	9.2	8.7	9.3	8.8	---	---	8.8	8.0	8.7	6.2
19	5.2	4.8	9.2	8.8	9.4	8.8	---	---	7.9	7.3	9.2	8.4
20	5.0	4.2	9.0	8.5	9.1	8.7	---	---	7.5	7.1	8.7	8.4
21	5.2	3.3	9.1	8.7	9.6	8.9	---	---	7.4	6.8	8.8	7.7
22	5.7	4.7	9.6	8.9	10.1	9.0	---	---	6.8	5.6	7.7	7.4
23	5.8	5.5	10.4	8.9	10.2	9.4	---	---	7.1	5.8	---	---
24	6.5	5.4	10.4	10.1	10.2	9.7	---	---	7.7	6.6	---	---
25	6.7	6.3	10.6	10.2	9.8	9.3	---	---	8.2	7.3	---	---
26	7.2	6.2	10.6	10.2	9.5	9.2	---	---	8.0	7.1	---	---
27	7.2	6.8	10.3	9.4	9.6	9.3	---	---	---	---	---	---
28	6.8	6.1	9.8	9.3	9.2	8.8	---	---	---	---	---	---
29	7.0	6.5	9.8	9.0	9.4	8.4	---	---	---	---	---	---
30	7.5	6.7	9.9	9.5	9.6	9.0	---	---	---	---	---	---
31	7.6	6.4	---	---	9.8	9.4	7.9	7.7	---	---	8.6	7.7
MONTH	7.6	3.3	10.6	6.6	10.9	8.4	10.5	6.7	9.7	5.6	12.3	5.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.2	7.7	7.2	3.3	2.0	4.3	3.4	3.3	2.6	3.5	2.6
2	8.1	7.1	7.0	6.5	3.4	2.4	4.2	3.3	3.0	2.4	3.3	2.5
3	8.0	7.8	6.9	6.1	3.8	2.5	4.2	3.3	3.1	2.0	3.9	2.4
4	8.1	7.9	6.7	6.3	4.0	2.4	3.9	3.2	2.9	1.6	3.6	2.9
5	9.9	7.6	6.7	6.1	3.2	2.4	5.3	2.7	2.6	1.8	3.5	2.8
6	10.2	9.6	6.6	5.9	5.0	2.5	3.1	2.3	2.7	1.6	3.1	2.3
7	10.3	9.8	6.5	5.7	4.6	3.7	3.3	1.8	4.3	2.8	3.2	2.1
8	10.6	10.0	6.1	5.7	4.1	3.2	3.6	1.9	---	---	3.1	2.4
9	10.6	10.2	6.1	5.4	5.6	3.8	3.4	2.3	---	---	3.2	2.5
10	10.7	10.2	5.9	5.4	5.6	4.2	3.5	2.4	---	---	3.3	2.4
11	11.0	10.1	5.6	5.3	4.3	2.8	3.4	2.4	---	---	2.9	2.7
12	10.1	9.1	5.1	4.4	[illegible]	2.5	2.9	1.7	---	---	---	---
13	---	---	4.5	3.8	4.0	2.8	3.2	2.2	---	---	---	---
14	---	---	4.4	3.1	3.0	2.1	3.0	2.2	---	---	---	---
15	---	---	4.3	3.4	3.2	2.5	2.6	1.8	---	---	6.1	5.3
16	---	---	3.8	2.9	3.9	2.4	2.2	1.5	---	---	6.3	5.3
17	---	---	3.9	3.0	3.3	.0	2.7	0.7	---	---	6.7	5.5
18	---	---	3.5	2.8	6.9	3.8	2.9	1.7	4.4	3.8	6.6	5.5
19	---	---	3.3	2.5	7.7	6.8	1.7	1.3	4.6	3.9	6.0	4.8
20	---	---	3.3	2.1	6.7	4.9	1.7	1.3	4.5	3.6	7.1	5.0
21	---	---	3.2	1.7	5.2	4.5	3.4	2.3	4.5	3.4	6.5	5.6
22	---	---	4.1	1.9	4.7	3.8	4.4	2.3	5.5	3.6	5.8	5.2
23	---	---	3.6	2.1	4.0	3.8	4.3	3.4	5.1	4.3	5.3	4.7
24	---	---	3.1	1.5	3.5	3.1	3.8	2.9	4.6	4.3	5.2	4.5
25	---	---	3.2	1.3	3.9	2.9	5.4	2.4	4.5	3.7	7.4	4.4
26	---	---	3.4	1.7	---	---	5.0	4.0	4.3	3.7	7.4	6.5
27	8.7	7.7	3.2	2.0	4.2	3.2	4.2	3.4	3.9	3.4	7.0	6.2
28	8.3	7.7	4.1	2.0	4.0	3.0	3.4	2.7	3.4	2.8	7.0	6.3
29	8.3	7.8	4.2	2.3	5.2	3.7	2.7	1.9	3.6	2.3	6.8	6.3
30	8.6	7.3	3.7	2.2	4.7	3.9	3.0	2.3	3.5	2.1	6.4	5.8
31	---	---	3.4	2.2	---	---	3.1	2.2	3.6	2.6	---	---
MONTH	11.0	7.1	7.7	1.3	7.7	.0	5.4	0.7	5.5	1.6	7.4	2.1
YEAR	12.3	.0										

03102950 PYMATUNING CREEK AT KINSMAN, OH

LOCATION.--Lat 41°26'34", long 80°35'18", in T.7 N., R.1 W., Trumbull County, Hydrologic Unit 05030102, on left bank at downstream side of bridge on State Highway 7 at Kinsman, 0.8 mi (1.3 km) downstream from Sugar Creek, and 1.2 mi (1.9 km) upstream from Stratton Creek.

DRAINAGE AREA.--96.7 mi² (250 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 906.8 ft (276.39 m) above mean sea level.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--12 years, 118 ft³/s (3.342 m³/s), 16.57 in/yr (421 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s (68.5 m³/s) Feb. 17, 1976, gage height, 12.27 ft (3.740 m) from rating curve extended above 800 ft³/s (22.7 m³/s); minimum discharge, 0.10 ft³/s (0.003 m³/s) Aug. 8, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	2300	*1590	45.0	*11.47	3.496	Mar. 21	0500	749	21.2	10.22	3.115

Minimum discharge, 2.2 ft³/s (0.062 m³/s) May 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	123	49	34	20	600	171	134	2.7	26	23	12
2	32	124	32	29	20	450	188	89	3.3	29	17	28
3	22	123	18	26	20	323	492	91	3.9	19	9.8	47
4	18	107	10	25	20	260	434	82	4.1	10	5.4	65
5	18	82	6.5	24	20	320	448	110	4.2	6.0	5.2	76
6	16	62	4.7	22	20	308	403	131	6.8	4.2	7.2	65
7	14	49	51	22	20	289	318	119	11	36	26	46
8	16	40	106	21	20	239	267	91	14	138	49	28
9	31	35	103	19	20	176	225	61	26	200	81	17
10	80	34	104	20	30	134	207	42	38	236	86	11
11	88	36	111	21	40	113	186	29	29	244	86	8.3
12	84	39	117	20	49	101	153	19	20	208	73	8.5
13	79	44	112	19	78	352	117	13	15	158	68	11
14	65	48	100	19	114	528	86	11	10	107	105	68
15	50	49	83	20	142	525	64	8.8	7.8	68	162	107
16	41	46	68	21	162	434	50	7.2	6.0	51	173	142
17	34	40	59	21	176	301	38	5.4	7.2	46	159	201
18	24	36	53	21	180	368	30	4.6	9.8	41	124	244
19	19	33	48	20	176	692	25	9.5	13	36	91	226
20	18	28	65	20	16[illegible]	656	37	12	14	47	65	209
21	26	24	84	20	152	708	63	7.4	12	57	46	178
22	33	21	103	19	137	584	60	4.4	9.3	76	65	152
23	43	16	108	19	162	511	126	4.3	7.2	107	108	155
24	64	13	100	19	577	438	381	3.9	5.4	103	160	148
25	93	11	83	21	1490	370	469	4.4	3.7	85	200	115
26	109	18	70	20	1450	280	487	3.7	3.2	83	186	81
27	119	43	61	20	1050	187	441	3.1	3.3	80	133	63
28	115	61	55	20	789	162	366	2.5	5.0	74	76	83
29	92	79	50	20	---	230	309	2.6	12	58	43	124
30	68	75	44	20	---	223	216	2.8	14	41	25	137
31	77	---	39	20	---	206	---	2.4	---	29	15	---
TOTAL	1631	1539	2097.2	662	7300	11068	6857	1111.0	320.9	2503.2	2472.6	2855.8
MEAN	52.6	51.3	67.7	21.4	261	357	229	35.8	10.7	80.7	79.8	95.2
MAX	119	124	117	34	1490	708	492	134	38	244	200	244
MIN	14	11	4.7	19	20	101	25	2.4	2.7	4.2	5.2	8.3
CFSM	.54	.53	.70	.22	2.70	3.69	2.37	.37	.11	.84	.83	.98
IN.	.63	.59	.81	.25	2.81	4.26	2.64	.43	.12	.96	.95	1.10

CAL YR 1976 TOTAL 41908.2 MEAN 115 MAX 2240 MIN 1.1 CFSM 1.19 IN 16.12
WTR YR 1977 TOTAL 40417.7 MEAN 111 MAX 1490 MIN 2.4 CFSM 1.15 IN 15.55

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03102950 PYMATUNING CREEK AT KINSMAN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	1400	408	215	7.1	10.5	6.3	56	2.4	77	39	22	5.4
JUN 27...	1800	3.4	350	7.1	20.5	3.5	38	3.4	140	24	40	9.8

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	8.0	4.0	47	0	39	6.0	34	17	.1	4.6	118	.80
JUN 27...	8.2	1.8	142	0	116	18	25	15	.1	8.0	179	.16

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.01	.04	.10	2	10	10	170	5	20	.0	20	4.1
JUN 27...	.02	.14	.13	5	10	23	60	11	850	.0	40	--

RESERVOIRS IN BEAVER RIVER BASIN, OH

03090000 **BERLIN LAKE NEAR BERLIN CENTER.**--Lat 41°02'46", long 81°00'10", in T.1 N., R.6 W., Portage County, Hydrologic Unit 05030103, at dam on Mahoning River, 3.2 mi (5.1 km) northwest of Berlin Center. DRAINAGE AREA, 248 mi^2 (642 km^2). PERIOD OF RECORD, December 1942 to current year. Prior to October 1971 published as Berlin Reservoir. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Lake is formed by earthfill dam with concrete spillway; storage began in December 1942. Usable capacity 91,150 acre-ft (112 hm^3) between elevations 956.5 ft (291.54 m) (invert of lowest outlet) and 1,032 ft (315 m) (top of taintor gates on controlled section) of which 1,800 acre-ft (2.22 hm^3) is in the conservation pool, elevation, 980.0 ft (298.70 m). No dead storage. Flow is normally controlled by sluiceways through dam but additional releases can be made through gates on controlled section of spillway. Lake is used for flood control and to augment flow of Mahoning River during periods of low flow. Water used for industrial purposes in vicinity of Warren and Youngstown. Gage-heights and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 91,150 acre-ft (112 hm^3) July 9, 1943, elevation, 1,032.0 ft (314.55 m); minimum, 1,540 acre-ft (1.90 hm^3) Jan. 10, 1944, elevation, 978.82 ft (298.344 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 71,370 acre-ft (88.0 hm^3) Apr. 6, elevation, 1,027.99 ft (313.331 m); minimum, 10,350 acre-ft (12.8 hm^3) Feb. 10, elevation, 997.73 ft (304.108 m).

03091000 **MILTON RESERVOIR NEAR PRICETOWN.**--Lat 41°07'38", long 80°58'40", in T.2 N., R.5 W., Mahoning County, Hydrologic Unit 05030103, at dam on Mahoning River, 0.8 mi (1.3 km) southwest of Pricetown. DRAINAGE AREA, 273 mi^2 (707 km^2). PERIOD OF RECORD, December 1923 to current year. Month-end contents for some periods published in WSP 1305. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by city of Youngstown). Prior to Oct. 7, 1941, nonrecording gage at same site and datum.

Reservoir is formed by earthfill dam with concrete spillway; storage began in 1916. Usable capacity 29,150 acre-ft (35.9 hm^3) between elevations 906.0 ft (276.15 m) (bottom of gates) and 951.0 ft (289.86 m) (top of gates). No dead storage. Flow is regulated by two 16-inch and four 36-inch gates on spillway. Reservoir is used to augment flow of Mahoning River during periods of low flow. Water used for industrial purposes in vicinity of Warren and Youngstown. Capacity table computed from base data furnished by city of Youngstown, Division of Water.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 35,020 acre-ft (43.2 hm^3) June 29, 1924, elevation, 953.8 ft (290.72 m), of which 5,870 acre-ft (7.24 hm^3) was in uncontrolled storage; minimum, 1,220 acre-ft (1.50 hm^3) Jan. 23, 1954, elevation, 924.27 ft (281.717 m), from graph based on gage readings.

EXTREMES FOR CURRENT YEAR: Maximum contents, 30,360 acre-ft (37.4 hm^3) Apr. 9 elevation, 951.59 ft (290.045 m); minimum, 12,790 acre-ft (15.8 hm^3) Feb. 12, elevation, 940.45 ft (286.649 m).

03092450 **MICHAEL J. KIRWAN RESERVOIR AT WAYLAND.**--Lat 41°09'24", long 81°04'47", in T.3 N., R.6 W., Portage County, Hydrologic Unit 05030103, at dam on West Branch Mahoning River, 0.5 mi (0.8 km) southwest of Wayland. DRAINAGE AREA, 80.5 mi^2 (208 km^2). PERIOD OF RECORD, December 1966 to current year. Prior to October 1971 published as West Branch Reservoir. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir is formed by earthfill dam with concrete spillway; storage began in December 1966. Usable capacity 78,660 acre-ft (97.0 hm^3) between elevations 936.8 ft (285.54 m) (lowest outlet) and 993.0 ft (302.67 m) (crest of spillway) of which 3,740 acre-ft (4.61 hm^3) is in conservation pool. Dead storage below elevation 936.8 ft (285.54 m), 85 acre-ft (105,000 m^3). Figures given herein represent usable contents. Flow is controlled by gates in concrete conduits in dam. Reservoir is used for flood control and to augment flow of Mahoning River during periods of low flow. Gage-heights and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 66,940 acre-ft (82.5 hm^3) Apr. 18, 1972, elevation, 989.19 ft (301.505 m); minimum, 5,370 acre-ft (6.62 hm^3) Jan. 5, 1967, elevation, 953.50 ft (290.627 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 59,260 acre-ft (73.1 hm^3) May 6-8, elevation, 986.47 ft (300.676 m); minimum, 30,030 acre-ft (37.0 hm^3) Feb. 11, 12, elevation, 973.55 ft (296.738 m).

03095000 **MOSQUITO CREEK LAKE NEAR CORTLAND.**--Lat 41°17'58", long 80°45'31", in T.5 N., R.3 W., Trumbull County, Hydrologic Unit 05030103, at dam on Mosquito Creek, 3.0 mi (4.8 km) southwest of Cortland. DRAINAGE AREA, 97.5 mi^2 (253 km^2). PERIOD OF RECORD, October 1943 to current year. Prior to October 1971 published as Mosquito Creek Reservoir. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Lake is formed by earthfill dam. A natural wasteway, elevation, 903.5 ft (275.39 m), discharges into the Grand River basin; storage began in October 1943. Usable capacity 102,200 acre-ft (126 hm^3) between elevations 881.0 ft (268.53 m) (lowest outlet), and 904.00 ft (275.539 m), (lake-full level). Dead storage below 881.0 ft (268.53 m), 2,000 acre-ft (2.47 hm^3). Figures given herein represent usable contents. Flow is controlled by gates in concrete conduits through dam. Lake is used for flood control and to augment flow of Mahoning River during periods of low flow. Water is used for industrial purposes in vicinity of Warren and Youngstown, and for municipal supply of city of Warren. Gage-heights and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 99,100 acre-ft (122 hm^3) June 3, 1947, elevation, 903.65 ft (275.432 m); minimum, 8,600 acre-ft (10.6 hm^3) Nov. 16, 1944, elevation, 886.97 ft (270.348 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 85,980 acre-ft (106 hm^3) Apr. 27, elevation, 902.10 ft (274.960 m); minimum, 48,680 acre-ft (60.0 hm^3) Feb. 12, elevation, 896.81 ft (273.348 m).

03097000 **MEANDER CREEK RESERVOIR NEAR MINERAL RIDGE.**--Lat 41°09'12", long 80°46'45", in T.3 N., R.3 W., Trumbull County, Hydrologic Unit 05030103, on right side of spillway near center of dam on Meander Creek, 0.8 mi (1.3 km) northwest of Mineral Ridge. DRAINAGE AREA, 83.9 mi^2 (217 km^2). PERIOD OF RECORD, November 1929 to current year. Month-end contents for some periods published in WSP 1305. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Mahoning Valley Sanitary District).

Reservoir is formed by earthfill dam with concrete spillway; storage began in 1929. Usable capacity at spillway level, elevation, 905 ft (276 m), 32,410 acre-ft (40.0 hm^3). No dead storage. Figures given herein represent usable contents. Water is used for municipal supply of cities of Niles and Youngstown. Gage-heights furnished by Mahoning Valley Sanitary District. Capacity table computed from base data furnished by Mahoning Valley Sanitary District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 41,800 acre-ft (51.5 hm^3) Jan. 21, 1959, elevation, 909.25 ft (277.139 m); minimum, 9,370 acre-ft (11.6 hm^3) Feb. 28, 1954, elevation, 888.78 ft (270.900 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 38,280 acre-ft (47.2 hm^3) Apr. 3, elevation, 907.76 ft (276.685 m); minimum, 23,150 acre-ft (28.5 hm^3) Feb. 12, elevation, 899.79 ft (274.256 m).

RESERVOIRS IN BEAVER RIVER BASIN, OH--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	03090000	BERLIN LAKE		03091000	MILTON RESERVOIR		03092450	MICHAEL J. KIRWAN RESERVOIR	
Sept. 30.....	1020.12	44000	-	948.19	23520	-	983.08	50430	-
Oct. 31.....	1015.80	33720	-10280	946.88	21590	-1930	981.48	46550	-3880
Nov. 30.....	1001.71	13600	-20120	942.43	15200	-6390	979.30	41550	-5000
Dec. 31.....	998.79	11160	-2440	942.07	14740	-460	976.64	35930	-5620
CAL YR 1976	-	-	-10860	-	-	-840	-	-	-1670
Jan. 31.....	997.94	10510	-650	940.60	12970	-1770	974.05	30940	-4990
Feb. 28.....	1017.10	36540	+26030	942.67	15510	+2540	978.24	39240	+8300
Mar. 31.....	1022.94	52310	+15770	949.07	25450	+9940	983.60	51740	+12500
Apr. 30.....	1025.03	59480	+7170	948.50	24420	-1030	986.24	58640	+6900
May 31.....	1024.15	56360	-3120	947.67	22950	-1470	984.99	55300	-3340
June 30.....	1022.48	50870	-5490	947.48	22620	-330	983.20	50730	-4570
July 31.....	1021.29	47280	-3590	947.10	21960	-660	981.38	46310	-4420
Aug. 31.....	1020.17	44140	-3140	948.57	24550	+2590	981.48	46550	+240
Sept. 30.....	1019.20	41590	-2550	948.81	24980	+430	981.69	47050	+500
WTR YR 1977	-	-	-2410	-	-	+1460	-	-	-3380

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	03095000	MOSQUITO CREEK LAKE		03097000	MEANDER CREEK RESERVOIR				
Sept. 30.....	899.80	68370	-	905.36	33140	-			
Oct. 31.....	899.75	68010	-360	904.39	31230	-1910			
Nov. 30.....	898.90	62040	-5970	903.08	28750	-2480			
Dec. 31.....	897.53	53110	-8930	902.25	27260	-1490			
CAL YR 1976	-	-	-250	-	-	-9100			
Jan. 31.....	896.86	48970	-4140	900.50	24290	-2970			
Feb. 28.....	898.78	61240	+12270	904.25	30960	+6670			
Mar. 31.....	901.09	77970	+16730	906.64	35810	+4850			
Apr. 30.....	901.99	85070	+7100	906.41	35310	-500			
May 31.....	901.24	79150	-5920	904.37	31190	-4120			
June 30.....	900.96	76960	-2190	904.83	32080	+890			
July 31.....	900.61	74340	-2620	904.14	30740	-1340			
Aug. 31.....	900.12	70680	-3660	905.12	32650	+1910			
Sept. 30.....	899.74	67940	-2740	906.12	34690	+2040			
WTR YR 1977	-	-	-430	-	-	+1550			

03109320 STATELINE CREEK NEAR NEGLEY, OH

LOCATION.--Lat 40°47'33", long 80°31;20", Columbiana County, Hydrologic Unit 05030101, on left bank downstream side of bridge on Township Road 1024 (Darlington Road), 80 ft (24 m) downstream from confluence of East and West Fork, 500 ft (152 m) upstream from mouth, 800 ft (244 m) west of Pennsylvania state line, and 1.3 mi (2 km) east of Negley.

DRAINAGE AREA.--3.09 mi^2 (8.00 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to September 1977.

GAGE.--Water-stage recorder and modified v-notch sharp crested weir. Datum of gage is 836.24 ft (255 m) above mean sea level.

REMARKS.--Records fair except those for winter periods, which are poor.

EXTREMES FOR PERIOD JANUARY TO SEPTEMBER 1977.--Peak discharge above base of 30 ft^3/s (0.850 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 18	1230	38	1.08	2.09	0.637	July 21	1545	38	1.08	2.15	0.655
Apr. 2	1845	*46	1.30	*2.16	0.658						

Minimum daily discharge, 0.65 ft^3/s (0.018 m^3/s) Jan. 22 to Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				.90	.65	4.1	5.8	4.1	1.7	2.6	1.3	1.5
2				.85	.65	3.7	25	5.0	1.4	1.5	1.2	1.8
3				.85	.65	3.5	23	5.5	1.4	1.4	1.1	1.8
4				.85	.65	5.0	17	5.2	1.4	1.4	1.1	1.7
5				.80	.65	4.5	19	5.5	1.5	1.6	1.4	1.8
6				.80	.65	4.1	16	6.6	2.0	1.6	1.6	2.0
7				.80	.65	3.7	15	6.9	1.7	2.7	5.2	1.6
8				.80	.65	3.7	13	6.0	1.4	3.7	2.7	1.4
9				.80	.65	3.1	12	5.0	2.8	2.2	2.3	1.4
10				.75	.75	3.1	11	4.5	1.9	2.1	1.8	1.4
11				.75	.90	3.1	9.6	4.1	1.6	1.9	1.7	1.3
12				.75	1.6	3.9	8.5	3.9	1.5	2.5	2.0	1.3
13				.75	2.2	14	8.0	3.7	1.4	2.0	1.7	1.6
14				.75	1.8	8.6	7.5	3.5	1.4	1.7	1.6	3.3
15				.70	1.5	7.4	7.0	3.3	1.4	1.6	1.4	1.8
16				.70	1.4	6.6	6.6	3.1	1.4	1.5	1.4	2.6
17				.70	1.2	5.8	6.3	2.9	4.5	1.4	2.4	2.7
18				.70	1.1	20	6.1	3.1	5.8	1.3	1.7	2.4
19				.70	1.0	14	5.8	3.3	2.9	1.5	1.6	2.3
20				.70	1.4	13	5.2	2.8	2.3	1.6	1.3	2.1
21				.70	1.5	10	4.5	2.6	2.0	8.3	1.4	1.9
22				.65	2.0	9.9	4.5	2.6	1.8	4.2	1.8	1.9
23				.65	4.3	8.3	6.3	2.4	1.7	2.8	2.4	1.8
24				.65	12	7.7	8.0	2.2	1.5	2.6	1.8	1.7
25				.65	9.9	7.1	5.8	2.1	1.4	4.0	1.8	1.7
26				.65	6.9	6.6	5.5	2.1	1.4	4.9	1.6	1.6
27				.65	6.1	6.6	5.2	2.1	1.3	2.5	1.6	1.5
28				.65	4.7	8.0	4.8	2.0	1.6	1.9	1.6	1.4
29				.65	---	7.4	4.3	1.8	1.4	1.5	1.6	1.4
30				.65	---	7.1	4.1	1.8	1.3	1.6	1.8	1.4
31				.65	---	6.9	---	1.8	---	1.4	1.7	---
TOTAL				22.60	68.10	220.5	280.4	111.5	56.8	73.5	55.6	54.1
MEAN				.73	2.43	7.11	9.35	3.60	1.89	2.37	1.79	1.80
MAX				.90	12	20	25	6.9	5.8	8.3	5.2	3.3
MIN				.65	.65	3.1	4.1	1.8	1.3	1.3	1.1	1.3
CFSM				.24	.79	2.30	3.03	1.17	.61	.77	.58	.58
IN.				.27	.82	2.65	3.37	1.34	.68	.88	.67	.65

03109320 STATELINE CREEK NEAR NEGLEY, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1977.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January to September 1977
pH: January to September 1977.
WATER TEMPERATURES: January to September 1977.
DISSOLVED OXYGEN: January to September 1977.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD JANUARY TO SEPTEMBER 1977.--
SPECIFIC CONDUCTANCE: Maximum, 8,760 micromhos Aug. 25; minimum, 1,260 micromhos May 11.
pH: Maximum, 8.1 units Sept. 30; minimum, 6.1 units Aug. 28.
WATER TEMPERATURES: Maximum, 29.0°C July 20; minimum, 0.0°C Jan. 13, 29.
DISSOLVED OXYGEN: Maximum, 14.9 mg/L Feb. 7; minimum, 6.7 mg/L June 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
NOV												
18...	1615	--	5080	7.2	5.0	10.0	78	--	340	--	--	--
JAN												
12...	1630	.75	5500	6.2	.0	12.0	82	--	2700	2600	--	--
FEB												
11...	1355	.89	5560	6.1	.0	14.3	98	--	2600	2500	--	--
MAR												
09...	1000	3.0	4200	7.0	6.0	11.5	92	8.2	1800	1700	590	77
APR												
06...	1930	16	4200	6.9	6.5	11.1	90	--	1800	1700	--	--
08...	1300	15	3400	7.0	10.5	10.0	89	--	1500	1400	--	--
22...	1105	4.5	4300	7.2	15.0	9.2	90	--	--	--	--	--
MAY												
05...	1350	5.7	3100	7.3	17.5	9.0	94	--	1400	1300	--	--
18...	1100	3.1	4100	7.0	20.5	8.2	90	--	--	--	--	--
JUN												
03...	1330	1.5	4890	7.0	17.0	8.4	87	--	2260	2200	--	--
JUL												
05...	1240	1.6	6000	6.5	25.0	6.8	81	--	2800	2700	--	--
14...	1135	1.8	6350	6.4	21.0	7.4	82	6.2	2800	2700	940	100
AUG												
04...	1550	1.3	6600	6.3	27.0	7.0	86	--	3140	3100	--	--
31...	1140	1.6	6350	6.7	18.5	8.0	85	--	2980	2900	--	--

03109320 STATELINE CREEK NEAR NEGLEY, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	.09	5.4	.02	4	10	4	30000	6	7300	.0	50	6.7
APR												
06...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--
14...	.14	8.4	.02	2	30	2	58000	12	9600	.0	100	11
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
NOV												
18...	--	--	--	--	--	--	550	1700	--	--	--	--
JAN												
12...	--	--	74	0	61	75	580	1500	--	--	--	--
FEB												
11...	--	--	66	0	54	84	540	1490	--	--	--	--
MAR												
09...	100	6.3	103	0	84	16	390	1200	.2	6.9	2460	3.4
APR												
06...	--	--	85	0	70	17	370	1100	--	--	--	--
08...	--	--	82	0	67	13	410	900	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	--	--	84	--	69	6.7	440	730	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	--	--	104	0	85	17	540	1450	--	--	--	--
JUL												
05...	--	--	110	0	90	56	495	1850	--	--	--	--
14...	170	10	119	0	98	76	470	1900	.3	7.7	3720	3.5
AUG												
04...	--	--	106	0	87	85	520	2150	--	--	--	--
31...	--	--	117	0	96	37	560	2000	--	--	--	--

03109320 STATELINE CREEK NEAR NEGLEY, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), JANUARY TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	6850	4720	4450	4270
2							---	---	6450	4650	4740	4060
3							---	---	6630	4650	4810	4350
4							---	---	6360	4690	4350	3540
5							---	---	6510	4750	4140	3760
6							---	---	7350	4920	4240	4060
7							---	---	7440	5100	4330	4140
8							---	---	6450	4870	4350	4170
9							---	---	6990	4660	4380	4170
10							---	---	5040	4330	4380	4150
11							---	---	6070	4030	4330	4110
12							5970	5350	5290	4110	4270	2910
13							6600	4620	4890	4150	3010	1740
14							6510	4830	5050	4690	3810	3030
15							6390	4560	5470	4290	4690	3850
16							6940	6460	5490	4150	4530	4470
17							6970	5830	5740	4230	---	---
18							7150	5200	5880	4260	3420	1890
19							6850	4710	5500	3850	4990	3460
20							6880	4440	6160	5460	5110	4180
21							6870	4390	6540	5980	5170	4630
22							7290	5580	7030	4270	4990	4270
23							7480	7200	4360	2440	4890	4390
24							7290	5040	2590	1600	4740	4360
25							6850	4860	2860	1870	4710	4300
26							6900	4530	3850	2940	4630	3840
27							7510	5230	4110	3870	4260	4030
28							7480	5250	4320	4000	4180	3390
29							7500	6480	---	---	3940	3670
30							8140	7140	---	---	3910	3610
31							7720	5640	---	---	4030	3840
MONTH							8140	4390	7440	1600	5170	1740

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4120	3840	3840	2080	4710	3960	4290	2370	6750	6100	8040	7060
2	4140	1660	2820	2410	4590	3750	5370	3940	6760	5400	7990	5700
3	4960	2470	3340	2290	5290	3390	5400	4110	6900	6060	7140	6510
4	5100	3540	2550	2250	4530	3790	4960	4360	6790	6010	7470	7030
5	4450	3700	3640	2080	4110	3570	5620	4390	6640	6000	7480	4500
6	4450	4140	3720	2290	3750	3150	5880	4690	6270	4210	6960	4890
7	4270	3910	3310	1870	4300	3420	6550	2490	5020	2650	7140	6930
8	4200	3940	3180	1590	4240	3460	4740	2640	5730	4560	6990	6180
9	4590	4110	2430	1500	4110	2250	5170	4360	6510	5610	6670	6400
10	4450	4020	2190	1320	4020	3220	5730	4710	6670	6100	6600	6060
11	4150	3700	2820	1260	4170	3400	6210	4420	6850	5890	7170	6400
12	4380	3490	3000	1320	3750	3570	5220	3910	6300	5110	7260	6900
13	4350	3640	2940	1600	4200	3600	5970	4710	6640	6270	7240	3990
14	4930	3600	3520	1690	4290	3760	6490	5310	6700	6480	6730	3250
15	4920	3870	3630	1590	4570	3760	6420	5100	7150	5940	7320	6640
16	4860	4230	3780	1770	4600	3780	6030	4860	7350	6550	---	---
17	4680	4140	4170	2010	5380	1420	5920	5100	6760	4290	---	---
18	4720	4330	4440	2470	3640	2050	6300	5040	6870	6300	---	---
19	4740	4170	4300	3850	4530	3580	6120	4980	7980	6730	8130	6240
20	4630	4090	4530	4200	5050	4150	6870	5580	8230	7600	8040	6960
21	4420	3970	4480	3940	5110	4200	6580	1680	7950	7270	7390	6450
22	4590	4230	4410	4000	5010	4090	5620	3030	7600	6280	8100	7270
23	4440	3570	4140	3910	5110	4050	6210	5430	8130	7450	7900	5940
24	4030	3690	4360	3850	5370	4190	6600	5890	7960	7110	6030	5430
25	4090	3150	4840	4140	5280	4570	6480	3450	8760	5880	5580	5280
26	3420	2730	4860	4380	5440	4420	5820	5070	7890	7200	5580	4960
27	4000	2350	5790	4410	5240	4270	8140	5530	8610	7210	5670	5260
28	---	---	5050	4860	4800	3610	8530	6270	7890	7530	5580	5460
29	3900	2580	5070	4720	5160	4380	6760	6240	7740	6030	5730	5550
30	3820	2110	4810	4660	5130	3990	6720	5190	7110	6010	6210	5800
31	---	---	4860	4570	---	---	6760	6510	8520	6910	---	---
MONTH	5100	1660	5790	1260	5440	1420	8530	1680	8760	2650	8130	3250
YEAR	8760	1260										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03109320 STATELINE CREEK NEAR NEGLEY, OH--Continued

PH (UNITS), JANUARY TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	---	---	7.1	6.9
2							---	---	---	---	7.2	6.9
3							---	---	---	---	7.2	6.9
4							---	---	7.1	6.9	7.2	7.0
5							---	---	7.4	7.1	7.2	7.0
6							---	---	7.3	7.0	7.2	6.8
7							---	---	7.4	7.0	7.2	7.1
8							---	---	7.5	7.2	7.2	7.0
9							---	---	7.4	7.0	7.1	7.0
10							---	---	7.5	7.3	7.1	6.9
11							---	---	7.4	7.0	7.1	6.8
12							7.4	7.2	7.1	7.0	7.2	7.0
13							7.4	7.2	7.1	7.0	7.2	7.0
14							7.3	7.1	7.3	7.1	7.1	6.9
15							7.3	7.1	7.5	7.1	7.1	6.8
16							7.2	7.1	7.4	7.1	6.8	6.8
17							7.3	7.1	7.4	7.0	---	---
18							7.3	7.0	7.4	7.1	7.1	7.0
19							7.4	7.1	7.5	7.2	7.1	6.9
20							7.4	7.1	7.3	7.1	7.1	6.9
21							7.4	7.1	7.2	7.1	7.0	6.7
22							7.2	7.1	7.2	7.0	7.1	6.7
23							7.1	7.0	7.3	7.0	7.0	6.7
24							7.3	7.0	7.3	7.2	7.1	6.8
25							7.4	7.1	7.3	7.2	7.2	6.9
26							7.4	7.1	7.2	7.0	7.1	6.8
27							---	---	7.1	6.9	7.1	6.8
28							---	---	7.1	6.9	7.0	6.8
29							---	---	---	---	6.9	6.6
30							---	---	---	---	6.9	6.6
31							---	---	---	---	7.0	6.7
MONTH							7.4	7.0	7.5	6.9	7.2	6.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.7	---	---	7.0	6.6	---	---	6.5	6.4	6.7	6.3
2	6.9	6.8	---	---	7.0	6.7	---	---	6.5	6.3	6.8	6.3
3	6.9	6.6	---	---	7.0	6.5	---	---	6.5	6.3	6.8	6.3
4	6.9	6.7	---	---	6.9	6.5	---	---	6.5	6.3	6.6	6.3
5	6.9	6.7	---	---	6.9	6.6	---	---	---	---	6.7	6.3
6	7.0	6.7	---	---	7.0	6.7	---	---	---	---	6.8	6.4
7	7.0	7.0	---	---	6.9	6.6	---	---	---	---	6.7	6.3
8	7.0	7.0	7.2	6.9	6.9	6.6	---	---	---	---	7.0	6.6
9	---	---	7.2	6.9	7.1	6.5	---	---	---	---	6.9	6.5
10	---	---	7.1	6.9	6.9	6.6	---	---	7.1	6.9	7.0	6.6
11	---	---	7.1	6.7	6.9	6.4	---	---	7.1	6.8	6.8	6.4
12	---	---	7.2	6.7	6.9	6.5	---	---	7.1	6.8	6.8	6.4
13	---	---	7.2	6.6	6.8	6.4	---	---	6.9	6.7	6.8	6.4
14	---	---	7.2	6.7	6.8	6.4	---	---	6.8	6.7	7.1	6.6
15	---	---	7.1	6.7	6.8	6.3	---	---	6.9	6.6	6.9	6.4
16	---	---	7.1	6.7	6.7	6.4	---	---	6.9	6.8	---	---
17	---	---	7.1	6.6	---	---	---	---	7.0	6.7	---	---
18	---	---	7.0	6.8	---	---	---	---	7.0	6.8	---	---
19	---	---	7.1	6.7	---	---	6.7	6.6	7.0	6.8	6.7	6.3
20	---	---	6.9	6.6	---	---	6.8	6.5	7.0	6.8	6.9	6.3
21	---	---	6.8	6.5	---	---	7.1	6.5	6.9	6.7	7.1	6.6
22	---	---	7.1	6.6	---	---	7.2	6.7	6.8	6.7	7.0	6.6
23	---	---	7.1	6.6	---	---	6.9	6.6	6.9	6.7	7.3	6.5
24	---	---	7.1	6.7	---	---	6.8	6.5	6.7	6.5	7.6	7.3
25	---	---	7.2	6.6	---	---	6.6	6.5	6.9	6.4	7.7	7.6
26	---	---	7.1	6.5	---	---	6.6	6.5	6.8	6.4	7.8	7.6
27	---	---	6.9	6.6	---	---	6.6	6.4	6.9	6.3	7.9	7.6
28	---	---	7.0	6.6	---	---	6.6	6.3	6.5	6.1	8.0	7.8
29	---	---	7.0	6.5	---	---	6.5	6.4	6.9	6.3	7.9	7.9
30	---	---	7.0	6.6	---	---	6.5	6.4	7.0	6.4	8.1	7.8
31	---	---	7.0	6.6	---	---	6.5	6.4	7.0	6.4	---	---
MONTH	7.0	6.6	7.2	6.5	7.1	6.3	7.2	6.3	7.1	6.1	8.1	6.3
YEAR	8.1	6.1										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03109320 STATELINE CREEK NEAR NEGLEY, OH--Continued

TEMPERATURE (DEG. C) OF WATER, JANUARY TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	0.5	0.5	7.5	1.5
2							---	---	1.0	0.5	7.5	0.5
3							---	---	1.0	0.5	8.0	1.0
4							---	---	1.0	0.5	8.0	4.5
5							---	---	0.5	0.5	6.0	3.5
6							---	---	0.5	0.5	10.0	3.5
7							---	---	0.5	0.5	6.0	3.0
8							---	---	0.5	0.5	10.5	1.5
9							---	---	0.5	0.5	12.5	2.5
10							---	---	0.5	0.5	13.0	4.5
11							---	---	0.5	0.5	13.5	4.0
12							0.5	0.5	0.5	0.5	10.5	6.5
13							0.5	0.0	0.5	0.5	10.5	7.5
14							0.5	0.5	2.5	0.5	9.0	7.5
15							0.5	0.5	1.0	0.5	14.5	6.0
16							0.5	0.5	0.5	0.5	9.0	6.0
17							0.5	0.5	0.5	0.5	---	---
18							0.5	0.5	0.5	0.5	8.0	5.5
19							0.5	0.5	0.5	0.5	11.0	5.0
20							0.5	0.5	1.0	0.5	8.0	5.5
21							0.5	0.5	0.5	0.5	12.0	4.5
22							0.5	0.5	1.5	0.5	8.0	4.5
23							0.5	0.5	3.5	1.5	11.5	3.5
24							0.5	0.5	4.0	2.5	9.5	4.0
25							0.5	0.5	6.5	2.5	11.0	3.0
26							0.5	0.5	7.0	2.5	12.5	3.5
27							0.5	0.5	7.0	3.5	13.0	4.5
28							0.5	0.5	5.5	2.5	12.0	9.0
29							0.5	0.0	---	---	17.5	9.0
30							0.5	0.5	---	---	18.5	9.0
31							0.5	0.5	---	---	12.0	9.0
MONTH							0.5	0.0	7.0	0.5	18.5	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	7.5	20.5	8.0	23.0	17.5	25.0	19.0	24.5	18.5	26.0	17.5
2	11.0	8.5	15.0	13.0	18.5	14.5	24.5	16.0	24.0	15.5	23.5	19.0
3	13.5	9.0	17.5	12.5	21.5	11.5	24.0	14.5	24.5	15.5	24.0	18.0
4	10.5	9.0	15.0	12.5	23.0	10.5	22.5	17.0	26.0	17.0	23.5	16.0
5	11.0	8.0	19.5	13.0	17.0	15.0	25.5	18.5	25.0	18.5	24.0	17.0
6	10.5	6.5	22.0	14.0	18.5	13.5	27.5	19.5	23.0	19.5	23.0	18.5
7	9.5	6.0	21.0	12.0	17.0	11.0	28.5	20.0	22.5	20.0	24.0	15.5
8	9.5	6.0	19.5	9.0	16.0	9.5	26.5	21.0	22.5	19.5	23.5	17.0
9	13.0	6.5	16.0	8.5	14.5	12.5	25.0	19.5	24.0	19.5	24.0	16.5
10	12.5	6.0	15.0	8.5	19.0	10.5	24.5	17.5	24.0	19.5	23.5	17.5
11	18.5	7.5	19.0	7.5	21.0	11.0	26.5	18.5	25.5	19.5	20.5	14.0
12	19.5	9.5	19.0	8.5	17.0	13.0	25.5	19.5	22.5	19.5	19.0	12.0
13	19.5	10.0	20.0	12.0	21.0	14.5	27.5	20.0	22.0	18.5	21.0	16.0
14	19.0	10.5	21.5	13.0	21.0	16.0	26.5	17.5	23.5	19.5	21.5	16.0
15	18.5	8.0	21.5	10.0	23.5	14.5	27.5	18.0	24.0	17.5	20.5	14.0
16	15.5	9.0	22.5	10.5	23.0	15.0	27.5	20.0	24.0	17.5	---	---
17	18.5	9.5	23.0	12.0	25.0	16.0	27.0	20.0	23.0	18.0	---	---
18	17.5	10.0	23.0	15.0	23.0	17.5	28.5	20.0	22.0	15.5	---	---
19	19.0	11.0	24.5	15.5	23.0	16.5	25.0	20.0	19.5	13.5	21.5	19.0
20	20.5	12.5	25.0	15.0	22.0	15.5	29.0	20.5	22.0	13.5	19.5	17.0
21	21.5	12.5	25.5	15.0	22.5	15.0	25.5	20.5	20.0	14.5	17.0	15.5
22	17.5	14.5	24.5	15.5	21.5	13.0	25.0	18.5	23.0	16.5	18.0	15.0
23	17.5	14.0	24.0	15.5	22.5	13.0	23.5	16.0	23.5	15.0	20.0	14.5
24	13.5	11.0	24.0	16.0	22.0	14.5	23.5	15.5	19.5	15.0	20.0	16.0
25	15.0	10.0	24.5	16.5	24.0	17.0	24.0	18.5	21.5	12.5	22.0	17.0
26	12.5	9.0	24.5	14.0	25.0	17.0	22.0	15.5	22.5	12.5	22.0	16.5
27	18.5	8.0	24.5	13.5	24.0	15.5	22.5	14.0	26.0	17.0	20.5	14.5
28	---	---	24.5	13.5	23.0	18.5	23.0	14.0	26.5	18.5	18.0	13.0
29	17.5	9.5	24.5	14.5	25.0	18.5	21.0	17.5	25.0	18.5	18.0	12.5
30	19.0	6.5	23.5	15.5	23.0	15.5	24.0	18.5	22.0	19.0	20.0	13.0
31	---	---	24.5	16.0	---	---	24.5	18.0	24.0	18.0	---	---
MONTH	21.5	6.0	25.5	7.5	25.0	9.5	29.0	14.0	26.5	12.5	26.0	12.0
YEAR	29.0	0.0										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03109320 STATELINE CREEK NEAR NEGLEY, OH--Continued

DISSOLVED OXYGEN (DO), MG/L JANUARY TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	14.5	14.0	---	---
2							---	---	14.5	14.2	---	---
3							---	---	14.4	13.8	---	---
4							---	---	14.0	13.6	---	---
5							---	---	14.0	13.5	---	---
6							---	---	14.0	13.6	---	---
7							---	---	14.9	13.8	---	---
8							---	---	14.3	13.8	---	---
9							---	---	14.2	13.6	10.9	9.5
10							---	---	14.1	13.6	11.3	9.0
11							---	---	13.8	12.1	11.0	8.7
12							12.0	11.6	12.1	11.1	10.2	9.0
13							12.0	11.2	12.1	11.1	9.7	8.5
14							11.5	10.9	11.7	10.8	10.2	9.0
15							12.8	10.4	11.5	10.7	10.4	8.2
16							12.7	12.5	11.4	10.3	9.3	9.2
17							12.8	12.2	11.6	10.4	---	---
18							---	---	12.0	11.3	9.9	8.2
19							---	---	12.0	11.2	10.8	8.9
20							---	---	11.4	10.8	10.8	7.6
21							---	---	11.7	10.7	---	---
22							---	---	11.6	10.8	---	---
23							---	---	10.8	9.7	---	---
24							---	---	10.4	8.7	10.9	8.8
25							---	---	12.1	10.0	10.9	9.6
26							---	---	12.3	10.6	---	---
27							---	---	11.7	10.4	10.8	9.2
28							---	---	11.9	10.9	---	---
29							---	---	---	---	10.1	7.6
30							---	---	---	---	---	---
31							14.5	14.0	---	---	10.6	8.0
MONTH							14.5	10.4	14.9	8.7	11.3	7.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.7	7.8	10.6	8.2	8.3	7.1					---	---
2	10.6	8.4	9.6	8.1	8.9	8.1					---	---
3	10.4	9.0	9.6	8.7	9.6	7.8					---	---
4	10.7	7.3	9.4	7.9	10.0	7.2					---	---
5	10.9	9.5	9.2	8.1	8.7	7.9					---	---
6	11.6	9.3	9.5	7.6	8.7	7.9					---	---
7	11.5	10.2	10.3	8.1	9.1	7.9					---	---
8	11.5	10.5	11.4	8.4	9.4	8.1					---	---
9	12.1	9.7	11.1	9.1	9.0	7.9					---	---
10	11.6	10.0	11.6	9.1	13.1	7.9					---	---
11	10.8	9.1	11.2	8.2	11.0	7.0					---	---
12	10.7	8.4	11.1	8.5	9.6	8.3					---	---
13	10.5	8.4	10.8	8.0	9.6	8.4					---	---
14	10.0	8.5	10.3	7.9	9.7	8.2					---	---
15	10.4	8.2	10.8	8.0	10.5	8.2					---	---
16	10.7	8.8	10.6	8.2	9.9	8.4					---	---
17	10.9	8.3	10.8	8.0	9.8	6.7					---	---
18	10.4	8.5	11.3	9.0	---	---					---	---
19	10.4	8.5	11.7	9.0	---	---					7.8	7.4
20	9.9	7.7	11.7	7.7	---	---					7.7	7.0
21	9.7	8.3	10.8	8.0	---	---					9.2	7.6
22	9.2	8.5	11.0	8.1	---	---					9.7	7.9
23	9.2	8.0	10.1	8.3	---	---					9.3	7.2
24	10.2	9.4	9.8	8.1	---	---					8.3	7.2
25	10.0	9.0	9.6	7.8	---	---					8.1	7.1
26	10.7	9.6	10.3	7.9	---	---					8.5	7.2
27	10.2	9.3	10.0	7.0	---	---					9.1	7.7
28	---	---	9.9	7.3	---	---					10.3	8.4
29	10.7	8.2	9.6	7.5	---	---					9.7	8.4
30	11.4	9.2	9.2	7.4	---	---					9.7	7.8
31	---	---	9.0	6.9	---	---					---	---
MONTH	12.1	7.3	11.7	6.9	13.1	6.7					10.3	7.0
YEAR	14.9	6.7										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OH

LOCATION.--Lat 40°40'33", long 80°32'27", Columbiana County, Hydrologic Unit 05030101, on right bank at downstream side of Grimms Bridge, 1.5 mi (2.4 km) upstream from Island Run, 4 mi (6 km) upstream from mouth, and 4 mi (6 km) northeast of East Liverpool.

DRAINAGE AREA.--496 mi² (1,285 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1915 to current year.

REVISED RECORDS.--WSP 873: 1937(M). WSP 1305: 1916-18(M), 1921-22(M), 1924-30(M), 1933(M), 1936(M). WSP 1907: 1950(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 702.77 ft (214.204 m) above mean sea level, adjustment of 1912. Prior to Sept. 22, 1926, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--62 years, 514 ft³/s (14.56 m³/s), 14.07 in/yr (357 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s (708 m³/s) July 19, 1941, gage height, 17.4 ft (5.30 m), from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of slope-area measurement of peak flow; minimum, 12 ft³/s (0.34 m³/s) several days in 1918, 1930, 1932, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximums (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Feb. 24	2300	5930	168	9.33	2.844	Apr. 3	0700	*7230	205	*10.13	3.088
Mar. 18	1900	5040	143	8.74	2.664						

Minimum discharge, 69 ft³/s (1.95 m³/s) Sept. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	517	190	140	100	975	648	435	119	471	157	91
2	190	415	170	140	100	749	2820	436	112	467	135	88
3	170	344	160	130	100	647	6940	732	108	246	120	110
4	157	304	150	130	100	858	4000	695	102	183	114	172
5	146	270	150	130	100	1140	3750	824	108	200	105	130
6	138	249	180	130	100	863	2760	826	147	215	112	187
7	132	235	526	120	100	695	1970	947	158	188	695	140
8	138	223	670	120	100	616	1690	725	134	387	1390	100
9	197	209	560	120	100	562	1300	606	216	309	715	89
10	368	223	460	120	150	524	1100	527	303	208	446	83
11	305	233	380	120	200	488	963	474	206	169	312	78
12	227	218	300	120	343	486	831	420	158	200	251	71
13	195	200	280	120	631	2590	728	388	137	266	217	70
14	175	190	256	120	906	2380	669	366	128	210	190	482
15	161	181	240	110	876	1490	607	331	120	162	170	660
16	150	180	230	110	714	1040	541	303	109	132	148	418
17	142	190	220	110	580	786	499	282	109	132	217	478
18	136	210	220	110	500	2650	467	281	1450	180	242	422
19	130	206	224	110	450	3710	481	383	2370	168	172	393
20	136	205	296	110	430	2310	625	326	506	164	140	357
21	197	199	300	110	420	1760	483	271	343	449	124	426
22	217	193	250	110	410	1510	465	238	257	1110	138	308
23	180	194	220	110	3000	1310	522	214	199	503	152	233
24	200	190	200	110	3960	1060	871	202	167	281	138	195
25	393	180	190	110	4860	866	738	189	158	501	117	185
26	410	204	180	110	2930	745	607	175	204	642	105	302
27	310	220	170	110	1820	670	558	159	162	343	97	235
28	252	223	160	100	1350	896	527	147	185	232	91	190
29	226	210	150	100	---	1180	566	137	243	191	85	159
30	210	200	150	100	---	925	492	128	210	197	86	144
31	384	---	140	100	---	757	---	123	---	180	89	---
TOTAL	6602	7015	7972	3590	25430	37238	39218	12290	8928	9286	7270	6996
MEAN	213	234	257	116	908	1201	1307	396	298	300	235	233
MAX	410	517	670	140	4860	3710	6940	947	2370	1110	1390	660
MIN	130	180	140	100	100	486	465	123	102	132	85	70
CFSM	.43	.47	.52	.23	1.83	2.42	2.64	.80	.60	.61	.47	.47
IN.	.50	.53	.60	.27	1.91	2.79	2.94	.92	.67	.70	.55	.52

CAL YR 1976 TOTAL 185600 MEAN 507 MAX 5970 MIN 61 CFSM 1.02 IN 13.92
WTR YR 1977 TOTAL 171835 MEAN 471 MAX 6940 MIN 70 CFSM .95 IN 12.89

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03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1976 to current year.
WATER TEMPERATURES: February 1976 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Sediment data collected at this site 1969 to 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,070 micromhos Sept. 5, 1977; minimum, 200 micromhos Apr. 4, 1977.
WATER TEMPERATURES: Maximum recorded, 31.0°C July 20, 1977; minimum, 0.0°C Mar. 18, Nov. 24, Dec. 1, 3, 4, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,070 micromhos Sept. 5; minimum, 200 micromhos Apr.4.
WATER TEMPERATURES: Maximum recorded, 31.0°C July 20; minimum, 0.0°C Nov. 24, Dec. 1, 3, 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 08...	1400	602	510	7.9	5.0	11.8	92	2.6	210	140	57	16
JUL 14...	1355	195	810	8.3	26.0	10.2	120	2.0	330	220	94	24

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 08...	18	2.7	78	0	64	1.6	120	37	.1	7.5	297	2.5
JUL 14...	28	3.5	139	2	117	1.1	180	61	.2	5.2	467	2.0

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 08...	.02	.16	.02	1	10	8	50	8	220	.0	20	10
JUL 14...	.01	.03	.06	2	10	6	50	16	50	.0	10	5.2

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	630	554	590	540	702	648	---	---	700	687	433	423
2	652	631	574	550	712	693	---	---	698	683	460	434
3	679	652	548	531	749	714	789	669	702	687	483	455
4	693	681	558	535	786	734	668	646	693	681	489	466
5	700	689	572	547	786	765	666	648	687	671	504	478
6	710	694	585	566	799	756	687	660	671	658	478	455
7	717	700	599	579	761	631	712	666	721	671	459	453
8	719	706	608	590	671	605	702	660	725	702	491	458
9	716	675	615	595	620	590	710	677	702	679	503	440
10	673	643	630	617	---	---	683	662	719	698	510	491
11	704	666	637	626	---	---	664	656	723	696	524	498
12	679	650	648	633	---	---	666	652	783	719	513	486
13	654	625	646	631	---	---	677	650	875	754	483	371
14	631	613	689	633	---	---	704	675	754	689	374	360
15	639	628	656	637	---	---	700	675	698	628	386	366
16	654	637	650	623	---	---	677	662	625	574	408	386
17	654	643	620	564	---	---	689	662	581	551	419	409
18	675	652	579	564	---	---	681	662	574	547	416	282
19	677	656	599	576	---	---	689	673	550	524	285	273
20	685	664	607	574	---	---	683	673	525	517	308	283
21	683	654	603	571	---	---	677	669	518	516	326	305
22	673	648	582	571	---	---	679	669	531	518	325	318
23	729	681	581	562	---	---	671	662	520	260	344	326
24	710	671	577	542	---	---	687	669	374	289	366	344
25	669	612	572	545	---	---	689	675	287	272	382	364
26	641	610	597	548	---	---	677	668	318	275	391	381
27	622	594	603	585	---	---	693	664	388	325	514	390
28	594	571	610	595	---	---	743	698	---	---	516	466
29	576	567	594	581	---	---	721	691	---	---	486	470
30	592	579	646	584	---	---	698	689	---	---	469	459
31	590	550	---	---	---	---	694	685	---	---	478	465
MONTH	729	550	689	531	799	590	789	646	875	260	524	273

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	596	479	544	533	946	887	898	703	840	703	994	753
2	597	264	664	537	931	903	800	690	727	720	1020	916
3	261	204	644	599	921	905	746	686	755	733	979	918
4	277	200	651	507	939	910	770	742	761	742	1010	923
5	289	276	607	568	949	916	776	748	766	744	1070	910
6	393	285	581	531	931	890	761	733	768	750	908	831
7	399	372	533	496	916	875	759	712	759	612	839	785
8	487	398	503	489	900	877	740	631	597	439	836	807
9	519	488	508	499	893	815	849	742	520	448	862	817
10	529	513	520	506	824	802	783	740	555	522	882	857
11	544	526	546	519	859	813	776	755	601	555	908	877
12	567	537	565	537	913	854	787	757	619	596	931	905
13	575	563	589	563	944	916	778	757	655	619	969	923
14	589	570	619	572	916	862	811	768	686	655	976	647
15	599	585	642	617	872	859	829	774	698	686	707	576
16	615	594	638	620	875	857	831	811	718	698	625	575
17	610	594	642	623	890	834	829	796	727	670	688	625
18	617	601	651	632	731	415	813	772	683	666	709	645
19	627	570	662	619	555	401	824	807	729	675	699	631
20	588	560	675	649	629	563	811	740	729	703	638	627
21	594	568	712	649	692	632	766	441	716	703	644	622
22	610	583	729	698	744	696	604	420	707	692	653	607
23	612	563	733	694	757	722	562	513	714	698	679	649
24	591	550	729	712	804	744	623	560	742	716	688	677
25	575	522	733	712	817	789	632	512	768	716	714	695
26	536	509	768	724	824	804	534	484	744	716	712	679
27	537	517	804	761	862	807	573	544	759	737	668	636
28	541	527	831	794	854	766	627	572	772	740	692	647
29	547	515	822	794	755	707	660	629	794	766	746	698
30	541	517	807	781	936	727	690	658	794	778	753	742
31	---	---	1010	804	---	---	705	681	785	763	---	---
MONTH	627	200	1010	489	949	401	898	420	840	439	1070	575
YEAR	1070	200										

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	13.0	6.0	4.5	0.5	0.0					4.0	2.5
2	14.5	13.5	5.0	3.0	0.5	0.5					3.5	0.5
3	17.0	13.5	7.0	5.0	0.5	0.0					4.5	1.5
4	17.0	13.5	6.0	4.0	0.5	0.0					6.5	3.5
5	16.5	13.5	4.0	2.5	0.5	0.5					5.5	4.5
6	16.0	14.5	4.5	2.0	1.0	0.5					6.5	4.0
7	16.0	13.5	4.5	2.5	1.0	0.5					5.5	4.0
8	14.0	13.0	4.5	2.0	0.5	0.5					6.0	2.5
9	13.0	11.0	3.5	1.0	0.5	0.5					8.0	3.5
10	11.0	9.5	5.0	3.0	---	---					9.5	6.5
11	12.0	10.5	5.0	4.0	---	---					10.0	7.0
12	11.5	9.5	4.5	3.5	---	---					9.0	8.0
13	13.0	10.0	4.0	2.0	---	---					10.0	9.0
14	12.0	10.0	3.0	1.0	---	---					9.0	8.0
15	12.5	9.0	3.5	1.0	---	---					10.0	7.5
16	11.5	9.5	2.5	0.5	---	---					11.0	8.5
17	9.5	8.0	2.0	0.5	---	---					9.0	6.5
18	7.5	6.5	3.0	1.0	---	---					8.5	6.5
19	7.5	5.5	5.0	2.5	---	---					7.0	4.5
20	7.5	6.5	3.5	1.5	---	---					6.5	5.5
21	7.5	6.0	3.0	1.5	---	---					8.0	4.0
22	6.0	5.0	2.0	1.0	---	---					7.0	5.5
23	6.0	3.5	1.5	0.5	---	---					7.0	3.5
24	7.5	5.5	1.0	0.0	---	---					6.5	4.0
25	8.5	7.5	1.5	0.5	---	---					7.0	2.5
26	8.0	6.0	4.0	1.0	---	---					8.0	4.0
27	6.0	4.0	6.5	3.5	---	---					9.5	5.0
28	5.0	2.5	6.0	3.5	---	---					10.5	9.0
29	5.0	2.5	3.0	0.5	---	---					14.0	9.5
30	4.5	3.0	0.5	0.5	---	---					15.5	11.5
31	6.5	4.5	---	---	---	---					14.5	11.0
MONTH	17.0	2.5	7.0	0.0	1.0	0.0					15.5	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	9.0	18.0	12.0	25.5	23.0	25.0	22.0	25.5	23.5	28.0	22.5
2	10.5	8.5	17.0	15.5	23.5	19.5	24.0	21.0	24.0	21.5	26.5	24.5
3	10.5	6.5	16.5	13.5	22.0	17.0	24.5	20.5	26.0	22.5	26.0	23.5
4	10.0	8.5	16.0	14.5	23.0	17.5	24.0	20.5	27.5	23.5	25.0	22.0
5	9.0	7.5	18.5	14.5	22.5	19.0	27.0	22.5	27.0	24.0	26.0	22.0
6	8.0	6.0	20.0	17.0	20.5	17.5	29.5	24.5	26.5	24.0	25.5	22.5
7	6.5	5.0	19.5	16.5	17.5	15.5	29.5	26.0	25.5	23.0	25.5	22.0
8	7.5	5.0	17.5	14.0	16.5	13.5	28.0	24.5	24.0	22.0	24.5	21.5
9	8.0	4.0	14.5	10.5	16.0	14.0	28.5	25.0	24.5	22.5	25.0	21.0
10	9.0	5.5	14.0	10.0	18.0	12.5	26.5	23.5	25.5	23.5	26.5	22.5
11	14.0	7.5	16.0	10.5	19.5	14.0	27.5	23.5	26.5	23.0	23.5	19.0
12	17.0	11.5	17.0	12.5	18.5	16.5	28.0	23.5	25.5	23.5	20.0	17.5
13	17.5	13.0	19.0	14.5	22.5	16.0	28.0	25.0	24.5	22.0	21.0	18.0
14	18.5	15.0	21.0	17.0	23.0	19.5	27.5	24.0	24.5	21.5	21.0	19.0
15	16.5	12.0	21.0	15.5	23.0	18.5	28.5	23.5	25.0	21.5	19.0	17.0
16	15.0	12.5	21.0	16.5	24.5	19.5	30.0	26.0	26.0	22.0	19.0	16.5
17	16.0	12.0	22.5	17.0	25.0	20.5	29.0	26.0	25.5	22.5	21.0	18.0
18	16.0	13.0	22.5	20.0	21.0	17.5	29.5	25.0	23.0	20.5	22.5	19.5
19	16.5	14.0	24.0	19.5	22.5	19.5	29.0	25.5	21.0	18.5	23.0	20.0
20	19.5	14.5	25.5	20.0	23.0	19.5	31.0	25.5	22.0	16.5	22.5	20.5
21	21.0	16.5	25.0	21.0	22.5	20.0	28.0	23.5	21.0	18.0	21.0	17.5
22	19.5	18.0	25.5	21.5	22.0	18.0	25.0	22.0	23.0	19.0	20.0	17.0
23	18.0	17.0	25.0	22.0	23.5	18.5	25.0	21.5	24.0	19.5	20.0	17.5
24	16.5	13.0	25.5	21.5	23.0	19.0	25.0	20.5	22.5	20.0	21.0	18.0
25	13.5	11.5	26.0	22.0	24.0	19.5	25.0	23.0	22.0	18.0	23.0	20.0
26	12.5	10.5	25.0	21.5	26.0	21.0	23.0	20.0	22.5	17.5	22.0	20.0
27	15.5	10.0	26.0	20.0	26.0	21.0	23.0	19.0	26.0	21.0	20.5	18.5
28	14.0	10.5	25.5	20.5	25.0	22.5	23.5	19.0	27.0	24.0	19.0	17.5
29	13.5	8.5	26.5	21.0	25.5	22.0	23.5	21.5	27.5	24.5	18.0	16.5
30	15.5	9.5	25.0	22.5	24.5	22.0	25.5	21.5	26.0	24.0	18.5	15.5
31	---	---	26.0	21.0	---	---	26.0	23.0	25.0	22.5	---	---
MONTH	21.0	4.0	26.5	10.0	26.0	12.5	31.0	19.0	27.5	16.5	28.0	15.5
YEAR	31.0	6.0										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OH

LOCATION.--Lat 40°32'16", long 80°43'31", in sec. 29, T.8 N., R.2 W., Jefferson County, Hydrologic Unit 05030101, on right bank 1,000 ft (305 m) upstream from Lowery Run, 0.9 mi (1.4 km) upstream from Brush Creek, and 1.6 mi (2.6 km) southwest of Hammondsville.

DRAINAGE AREA.--147 mi² (381 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 692.10 ft (210.952 m) above mean sea level, Ohio State Highway Department bench mark.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--37 years, 156 ft³/s (4.418 m³/s), 14.41 in/yr (366 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,580 ft³/s (271 m³/s) Jan. 27, 1952, gage height, 12.17 ft (3.709 m); minimum, 0.8 ft³/s (0.023 m³/s) Sept. 24 to Oct. 1, Oct. 7, 8, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--The highest stage observed is reported to have occurred in 1912.

EXTREMES FOR CURRENT YEAR.--Peak discharge, 2,390 ft³/s (67.7 m³/s) Apr. 3, gage height, 6.49 ft (1.978 m), above base of 2,000 ft³/s (56.6 m³/s); minimum discharge, 12 ft (0.34 m³/s) Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	227	21	26	18	280	206	115	32	87	34	19
2	22	166	18	25	18	212	877	104	29	77	34	17
3	20	112	16	24	18	183	1670	117	26	50	25	18
4	18	77	16	24	18	251	825	112	24	42	21	39
5	17	59	16	23	18	318	1290	203	30	63	19	25
6	14	51	17	23	18	245	810	230	75	61	39	20
7	14	45	138	22	18	209	574	725	54	48	139	32
8	15	42	287	22	18	183	468	376	37	119	129	27
9	33	38	191	22	18	164	356	267	97	79	228	20
10	98	38	140	21	30	151	311	221	117	54	112	17
11	58	38	100	21	61	136	273	189	57	42	78	15
12	40	34	98	21	146	136	233	159	44	59	60	14
13	32	31	80	21	300	910	203	141	38	59	55	13
14	28	28	70	21	587	655	186	131	34	42	48	90
15	23	26	65	20	524	440	166	112	32	30	62	120
16	21	26	60	20	404	335	148	97	28	25	53	80
17	19	23	55	20	320	260	138	85	26	21	61	90
18	19	22	52	20	290	745	131	93	592	23	94	80
19	18	24	48	20	260	850	126	194	221	23	60	75
20	20	24	59	20	240	605	119	119	117	18	48	70
21	39	22	81	20	230	476	110	93	83	18	40	80
22	44	22	60	20	220	452	101	79	63	512	40	60
23	31	22	50	19	400	388	108	70	51	153	39	50
24	36	21	40	19	1140	325	141	63	44	87	31	46
25	124	20	36	19	1270	273	119	57	42	77	27	36
26	102	22	34	19	750	239	108	53	40	119	23	55
27	75	28	32	19	512	212	104	48	34	63	20	42
28	58	30	30	19	388	270	101	44	110	47	18	36
29	47	30	29	19	---	311	175	42	121	39	16	32
30	44	25	28	18	---	260	131	38	73	38	17	28
31	111	---	27	18	---	239	---	36	---	36	21	---
TOTAL	1264	1373	1986	645	8254	10713	10308	4413	2371	2211	1691	1344
MEAN	40.8	45.8	64.1	20.8	295	346	344	142	79.0	71.3	54.5	44.8
MAX	124	227	287	26	1270	910	1670	725	592	512	228	120
MIN	14	20	16	18	18	136	101	36	24	18	16	13
CFSM	.28	.31	.44	.14	2.01	2.35	2.34	.97	.54	.49	.37	.31
IN.	.32	.35	.50	.16	2.09	2.71	2.61	1.12	.60	.56	.43	.34

CAL YR 1976 TOTAL 47296.0 MEAN 129 MAX 1470 MIN 9.3 CFSM .88 IN 11.97
WTR YR 1977 TOTAL 46573.0 MEAN 128 MAX 1670 MIN 13 CFSM .87 IN 11.79

03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 08...	1630	161	350	7.5	6.0	10.0	80	1.8	140	98	38	10
JUL 13...	1350	61	540	8.0	27.5	8.4	100	1.7	180	140	52	13

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 08...	14	1.8	46	0	38	2.3	96	15	.1	7.7	206	1.1
JUL 13...	23	2.7	50	0	41	.8	160	18	.1	6.1	300	.31

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 08...	.01	.06	.03	1	<10	6	90	4	250	.0	20	9.5
JUL 13...	.00	.06	.01	2	<10	0	60	12	60	.1	10	6.0

03111500 SHORT CREEK NEAR DILLONVALE, OH

LOCATION.--Lat 40°11'36", long 80°44'04", in sec. 30, T.4 N., R.2 W., Jefferson County, Hydrologic Unit 05030106, on right bank at downstream side of bridge on State Highway 150, 2.1 mi (3.4 km) east of Dillonvale, 2.2 mi (3.5 km) downstream from Jug Run, and 2.9 mi (4.7 km) upstream from Little Short Creek.

DRAINAGE AREA.--123 mi² (319 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WSP 1003: 1942-43. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 676.1 ft (206.08 m) above mean sea level, State of Ohio bench mark. Prior to Oct. 21, 1941, nonrecording gage at same site and datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--36 years, 123 ft³/s (3.483 m³/s), 13.58 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s) Mar. 6, 1945, gage height, 8.77 ft (2.673 m); maximum gage height, 10.15 ft (3.094 m) Mar. 5, 1963, from graph based on gage readings; minimum daily discharge, 2.8 ft³/s (0.079 m³/s) Sept. 21, 27, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 15	0600	ice jam		*9.46	2.883	Apr. 2	2300	*4110	116	8.71	2.655

Minimum discharge, 20 ft³/s (0.57 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	150	50	34	26	152	146	130	69	133	62	37
2	46	90	44	34	26	127	936	132	65	106	54	35
3	42	70	40	32	26	118	1260	137	64	85	49	50
4	40	60	38	32	26	206	545	215	62	90	45	41
5	38	60	38	32	26	230	659	278	75	135	43	38
6	36	55	50	30	26	168	455	282	220	193	42	38
7	36	50	200	30	26	143	360	312	116	109	54	53
8	43	50	257	30	28	127	312	217	84	109	56	37
9	134	55	121	30	30	114	267	185	187	165	85	37
10	131	60	100	30	32	106	247	163	135	130	58	36
11	72	60	90	30	36	100	227	155	90	104	60	34
12	53	55	80	30	80	102	203	137	81	157	52	32
13	48	50	75	28	150	523	189	130	84	151	49	32
14	39	46	66	28	270	295	177	128	82	110	52	38
15	38	44	60	28	230	211	163	118	79	93	260	41
16	36	60	60	28	190	192	151	112	74	86	96	123
17	34	68	55	28	150	154	149	107	74	82	72	93
18	32	52	53	28	130	490	145	104	203	110	62	56
19	32	50	52	28	110	407	141	118	126	86	52	82
20	36	46	66	28	95	292	130	103	99	77	46	76
21	44	44	69	28	83	237	123	96	92	92	44	52
22	55	42	54	28	90	255	118	92	85	435	44	40
23	46	40	50	28	239	230	121	89	81	110	41	35
24	60	46	48	28	631	196	167	90	79	79	40	32
25	180	50	46	28	502	170	128	99	96	159	39	34
26	110	54	44	26	312	159	118	85	100	181	36	32
27	80	60	42	26	226	148	116	81	84	92	36	27
28	60	63	40	26	178	206	143	79	90	75	35	25
29	55	63	38	26	---	208	222	75	104	66	34	22
30	70	55	36	26	---	174	149	74	85	65	35	21
31	180	---	36	26	---	163	---	72	---	60	39	---
TOTAL	1876	1748	2098	894	3974	6403	8247	4195	2965	3725	1772	1329
MEAN	60.5	58.3	67.7	28.8	142	207	275	135	98.8	120	57.2	44.3
MAX	180	150	257	34	631	523	1260	312	220	435	260	123
MIN	32	40	36	26	26	100	116	72	62	60	34	21
CFSM	.49	.47	.55	.23	1.15	1.68	2.24	1.10	.80	.98	.47	.36
IN.	.57	.53	.63	.27	1.20	1.94	2.49	1.27	.90	1.13	.54	.40

CAL YR 1976 TOTAL 43814 MEAN 120 MAX 1790 MIN 29 CFSM .98 IN 13.25
WTR YR 1977 TOTAL 39226 MEAN 107 MAX 1260 MIN 21 CFSM .87 IN 11.86

03111500 SHORT CREEK NEAR DILLONVALE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1700	211	1450	7.8	8.0	11.1	93	1.0	760	590	190	70
JUL 13...	1240	153	1780	7.9	23.0	8.3	95	2.6	910	740	230	81

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	60	3.5	214	0	176	5.4	670	31	.2	6.8	1140	.75
JUL 13...	85	4.5	201	0	165	4.0	810	38	.2	7.2	1360	.42

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.01	.08	.05	2	10	4	50	6	240	.0	50	--
JUL 13...	.02	.07	--	5	10	13	10	20	190	.0	100	5.8

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OH

LOCATION.--Lat 39°54'31", long 80°55'27", in NE 1/4 sec. 10, T.5 N., R.4 W., Belmont County, Hydrologic Unit 05030106, on left bank at downstream side of bridge on State Highway 148, 0.5 mi (0.8 km) east of Armstrongs Mills, and 0.7 mi (1.1 km) downstream from Anderson Run.

DRAINAGE AREA.--134 mi² (347 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1926 to September 1935, October 1958 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 739.53 ft (225.409 m) above mean sea level. Aug. 20, 1926, to Sept. 30, 1935, nonrecording gage at same site, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except for the winter periods, which are fair.

AVERAGE DISCHARGE.--28 years, 160 ft³/s (4.531 m³/s), 16.21 in/yr (412 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) Sept. 1, 1975, gage height, 13.61 ft (4.148 m); maximum gage height, 14.40 ft (4.389 m), present datum, Aug. 7, 1935; no flow at times during 1929-30, 1932, 1934, 1959, 1963-66, 1972-74.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 13	1630	ice jam	ice jam	7.76	2.365	Apr. 2	2300	5080	144	8.67	2.643
Feb. 23	2230	3280	92.9	7.07	2.155	May 6	1700	*5280	150	*8.83	2.691
Mar. 18	1400	3610	102	7.37	2.246	Aug. 15	0300	3240	91.8	7.04	2.146

Minimum daily discharge, 3.3 ft³/s (0.093 m³/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	272	29	48	36	229	157	102	15	29	13	15
2	36	178	28	46	36	187	1390	109	13	28	13	27
3	28	137	26	50	36	162	1830	107	11	15	7.8	52
4	20	107	24	55	36	699	830	167	9.4	14	5.5	25
5	16	87	26	50	36	604	1430	241	11	35	4.0	17
6	14	74	30	46	36	351	671	1450	21	22	3.5	13
7	12	63	840	44	36	265	440	776	19	15	419	10
8	18	56	353	42	36	210	345	328	14	19	342	9.1
9	272	49	209	42	36	180	272	211	93	313	113	7.5
10	217	48	161	42	40	157	244	155	45	93	53	6.6
11	90	45	140	40	100	140	216	123	26	40	41	5.7
12	55	40	120	40	248	137	184	100	21	72	94	4.8
13	40	37	110	40	1300	1330	162	84	18	86	86	3.7
14	34	32	100	40	597	517	135	75	16	43	65	4.4
15	28	31	90	40	319	340	127	62	14	26	1060	8.7
16	26	30	80	38	211	263	113	51	12	19	232	56
17	24	29	76	38	190	208	107	46	8.8	16	144	59
18	20	33	69	38	180	1510	100	43	7.7	54	98	25
19	18	30	65	38	170	752	93	120	7.7	26	60	18
20	17	28	72	38	163	489	84	57	6.7	15	45	18
21	50	24	80	36	152	360	78	43	5.1	12	37	17
22	37	24	81	36	175	462	75	37	4.5	92	42	12
23	28	23	75	36	1410	370	76	33	4.2	37	31	9.7
24	95	25	70	36	2200	290	82	39	3.3	20	26	9.0
25	218	27	65	36	998	234	76	42	6.3	16	25	12
26	170	30	60	36	569	201	71	36	22	16	19	85
27	107	30	60	36	418	176	76	28	12	13	17	32
28	77	31	55	36	302	290	120	24	36	9.1	16	20
29	62	31	55	36	---	276	250	22	48	7.8	14	15
30	55	30	53	36	---	216	132	19	28	17	13	12
31	430	---	50	36	---	185	---	17	---	14	21	---
TOTAL	2350	1681	3352	1251	10066	11790	9966	4747	558.7	1233.9	3159.8	609.2
MEAN	75.8	56.0	108	40.4	360	380	332	153	18.6	39.8	102	20.3
MAX	430	272	840	55	2200	1510	1830	1450	93	313	1060	85
MIN	12	23	24	36	36	137	71	17	3.3	7.8	3.5	3.7
CFSM	.57	.42	.81	.30	2.69	2.84	2.48	1.14	.14	.30	.76	.15
IN.	.65	.47	.93	.35	2.79	3.27	2.77	1.32	.16	.34	.88	.17

CAL YR 1976 TOTAL 61875.2 MEAN 169 MAX 2470 MIN 3.9 CFSM 1.26 IN 17.18
WTR YR 1977 TOTAL 50764.6 MEAN 139 MAX 2200 MIN 3.3 CFSM 1.04 IN 14.09

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD- NESS (CA,MG) (MG/L)	N- NONR- CARATE BONAD- HARDS NESS/L) (MG/	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
MAR 24...	1100	282	320	8.1	5.5	12.7	100	.7	140	47	43	8.6
JUL 13...	1535	81	500	8.3	27.0	8.7	110	2.0	190	60	57	11

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	S- DISVED SOLVICA SILIO2) (SIO/L) (MG/	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	9.9	1.6	117	0	96	1.5	48	10	.1	6.0	185	.68
JUL 13...	18	2.8	154	1	128	1.3	79	17	.2	6.0	268	.37

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	AL TOTAURY MERCUG) (HG/L) (UG/	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.01	.01	.03	1	20	4	30	3	20	.0	30	6.2
JUL 13...	.01	.03	.18	0	<10	5	10	17	0	.0	20	7.3

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OH

LOCATION.--Lat 39°33'47", long 81°12'14", in sec. 22, T.3 N., R.6 W., Washington County, Hydrologic Unit 05030201, on left bank 400 ft (122 m) upstream from bridge on State Highway 260 at Bloomfield, 2.2 mi (3.5 km) downstream from Wilson Run.

DRAINAGE AREA.--210 mi² (544 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 1705: 1959.

GAGE.--Water-stage recorder. Datum of gage is 645.99 ft (196.898 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--19 years, 248 ft³/s (7.023 m³/s), 16.04 in/yr (407 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) Mar. 5, 1963, gage height, 28.08 ft (8.559 m), from rating curve extended above 8,000 ft³/s (227 m³/r) on basis of velocity-area study and flow over road computations; no flow Sept. 18, 26, 27, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 7	1700	3030	85.8	15.76	4.804	Apr. 3	1100	*5330	151	*20.10	6.126
Mar. 13	1500	3820	108	17.65	5.380	Apr. 5	1100	3600	102	17.20	5.243
Mar. 19	0100	4180	118	18.30	5.578	May 7	0200	3840	109	17.68	5.389

Minimum discharge, 2.1 ft³/s (0.059 m³/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	672	30	36	24	278	188	254	15	30	6.7	11
2	32	303	26	32	24	224	770	203	12	30	5.5	9.7
3	28	207	24	32	24	197	4090	218	10	25	7.1	11
4	23	147	24	30	24	1130	1030	402	9.0	16	5.3	36
5	16	112	28	30	24	1450	2880	1700	7.9	13	3.5	24
6	11	91	33	30	24	557	1200	1450	7.9	13	2.8	15
7	9.1	77	2100	30	24	367	692	2460	6.7	14	20	12
8	10	68	1170	30	24	287	465	792	7.1	11	182	9.7
9	555	59	385	30	24	242	340	412	11	7.9	85	8.2
10	828	55	257	30	28	203	287	302	29	6.0	38	5.8
11	216	51	200	30	81	177	248	239	30	5.3	40	4.5
12	110	45	170	28	560	167	206	192	20	5.8	221	4.0
13	75	39	150	28	1670	2720	177	162	14	7.9	239	4.0
14	56	36	130	28	1250	1040	165	140	11	7.9	125	5.0
15	44	33	120	28	662	465	152	118	9.3	7.9	775	10
16	40	33	110	28	367	342	130	97	8.6	7.5	332	40
17	37	30	100	28	251	269	116	83	7.5	7.5	827	60
18	29	28	95	28	220	1670	107	74	6.0	13	495	25
19	22	28	89	26	200	2150	101	74	5.3	7.5	200	15
20	22	27	99	26	180	627	93	76	5.0	4.5	114	10
21	40	26	100	26	152	440	85	62	4.3	3.8	73	9.7
22	50	25	99	26	165	397	80	51	3.8	97	55	9.0
23	42	25	95	26	948	355	80	43	3.1	66	45	7.5
24	96	22	91	26	2300	297	93	42	2.8	25	36	6.0
25	505	21	69	26	1790	248	97	44	5.0	29	33	5.3
26	432	22	60	26	785	212	85	36	7.5	99	28	6.0
27	228	25	50	26	505	188	83	31	11	30	20	9.7
28	137	28	44	26	360	236	160	28	17	16	16	9.3
29	100	36	42	24	---	310	972	24	45	11	13	8.2
30	83	39	40	24	---	257	372	20	42	8.6	12	7.5
31	1060	---	38	24	---	227	---	18	---	6.7	12	---
TOTAL	4967.1	2410	6068	868	12690	17729	15544	9847	373.8	632.8	4066.9	398.1
MEAN	160	80.3	196	28.0	453	572	518	318	12.5	20.4	131	13.3
MAX	1060	672	2100	36	2300	2720	4090	2460	45	99	827	60
MIN	9.1	21	24	24	24	167	80	18	2.8	3.8	2.8	4.0
CFSM	.76	.38	.93	.13	2.16	2.72	2.47	1.51	.06	.10	.62	.06
IN.	.88	.43	1.07	.15	2.25	3.14	2.75	1.74	.07	.11	.72	.07

CAL YR 1976 TOTAL 72038.1 MEAN 197 MAX 3410 MIN 1.8 CFSM .94 IN 12.76
WTR YR 1977 TOTAL 75594.7 MEAN 207 MAX 4090 MIN 2.8 CFSM .99 IN 13.39

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1450	291	270	7.8	7.0	11.3	93	.6	110	36	33	7.6
JUL 13...	1935	8.4	458	7.9	25.5	6.2	75	1.4	170	37	50	10

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	10	1.4	95	0	78	2.4	35	13	.1	6.3	153	.41
JUL 13...	20	2.4	157	0	129	3.2	27	46	.1	3.4	236	.05

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.00	.00	.01	1	20	8	30	3	20	.0	30	4.8
JUL 13...	.00	.04	.02	2	<10	0	10	11	10	.0	20	6.1

03116000 TUSCARAWAS RIVER AT CLINTON, OH

LOCATION.--Lat 40°55'40", long 81°37'58", in NW 1/4 sec. 32, T.2 N., R.10 W., Summit County, Hydrologic Unit 05040001, on right bank 100 ft (30 m) downstream from highway bridge at Clinton, and 1 mi (2 km) upstream from Chippewa Creek.

DRAINAGE AREA.--174 mi² (451 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1926 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 933.23 ft (284.464 m) above mean sea level, adjustment of 1912. Prior to Nov. 18, 1928, nonrecording gage at site 100 ft (30 m) upstream at datum 4.00 ft (1.219 m) higher. Nov. 18, 1928, to July 24, 1930, nonrecording gage at same site at present datum.

REMARKS.--Records fair. Some water diverted through the Portage Lakes into the Ohio Canal at Long Lake 12 mi (19 km) upstream and 3 mi (5 km) south of Akron. Part of the diverted water flows through the Ohio Canal into the Cuyahoga River basin. Flow affected by industrial plants upstream from station and supplemented at times by diversion from Nimisila Reservoir, capacity, 6,500 acre-ft (8.01 hm³), since 1939.

AVERAGE DISCHARGE.--48 years, (1929-77), 147 ft³/s (4.163 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s (76.5 m³/s) Aug. 8, 1935; maximum gage height, 17.00 ft (5.182 m) July 7, 1969 (backwater from Chippewa Creek); minimum daily discharge, 10 ft³/s (0.28 m³/s) Nov. 6, 1928.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) Feb. 25, gage height, 12.75 ft (3.886 m); minimum daily discharge, 60 ft³/s (1.70 m³/s) Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	194	73	72	74	406	173	128	103	188	70	67
2	80	139	75	71	74	285	840	125	79	131	70	[illegible]
3	75	117	70	72	75	215	1810	173	77	82	67	87
4	76	110	71	73	77	320	1370	225	72	245	68	67
5	75	108	70	73	77	443	980	427	113	446	81	64
6	76	89	72	72	74	260	600	279	176	188	85	75
7	81	85	144	73	75	202	420	169	111	98	316	69
8	86	89	122	70	76	174	330	125	88	163	158	67
9	124	88	96	69	83	155	287	107	163	117	91	65
10	140	88	92	72	98	147	234	99	144	80	110	63
11	127	83	87	72	126	152	200	95	83	86	130	60
12	126	80	88	70	144	177	175	92	76	221	120	60
13	122	77	83	68	210	1270	161	89	75	106	100	88
14	111	75	78	70	207	850	162	86	75	80	88	238
15	88	75	77	72	153	450	135	82	73	75	78	146
16	83	75	78	71	110	230	120	80	73	71	75	173
17	77	73	77	70	98	190	115	82	79	96	113	140
18	79	77	73	68	91	300	112	81	159	188	100	120
19	75	77	71	68	86	1000	109	89	91	123	80	110
20	77	73	89	72	82	900	104	79	82	96	74	98
21	95	72	96	72	82	720	102	76	78	80	81	88
22	77	72	91	71	89	600	101	74	73	88	226	80
23	73	73	83	69	346	660	192	75	71	73	153	72
24	111	72	77	71	1340	542	400	80	71	69	97	80
25	120	73	73	77	1970	306	264	80	81	82	84	114
26	99	77	75	77	1550	227	234	76	73	76	77	101
27	95	86	78	78	1010	194	207	74	68	71	73	84
28	88	79	79	76	690	356	171	73	76	70	79	79
29	85	79	77	74	---	591	185	70	254	72	71	75
30	82	76	73	72	---	369	145	69	154	86	71	74
31	166	---	73	78	---	232	---	72	---	68	69	---
TOTAL	2956	2631	2561	2233	9167	12923	10438	3531	2991	3715	3151	2776
MEAN	95.4	87.7	82.6	72.0	327	417	348	114	99.7	120	102	92.5
MAX	166	194	144	78	1970	1270	1810	427	254	446	316	238
MIN	73	72	70	68	74	147	101	69	68	68	67	60

CAL YR 1976 TOTAL 76798 MEAN 210 MAX 1880 MIN 60
WTR YR 1977 TOTAL 59073 MEAN 162 MAX 1970 MIN 60

03116000 TUSCARAWAS RIVER AT CLINTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	0915	228	5160	9.2	10.5	8.6	77	7.5	670	460	250	12
JUL 14...	1355	83	5570	8.1	30.5	5.8	76	3.2	1400	1200	530	16

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	850	6.5	209	28	218	.3	190	1400	.2	20	2860	1.1
JUL 14...	640	11	172	0	141	2.2	120	1800	.2	12	3210	.49

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.06	.69	.28	12	20	19	30	54	140	.0	70	3.8
JUL 14...	.11	1.2	.27	11	10	8	40	13	290	.1	60	6.1

03116200 CHIPPEWA CREEK AT EASTON, OH

LOCATION.--Lat 40°56'47", long 81°44'35", in SW 1/4 sec. 17, T.18 N., R.11 W., Wayne County, Hydrologic Unit 05040001, on left bank at downstream side of bridge on State Highway 585, 0.5 mi (0.8 km) southwest of Easton, and 1.5 mi (2.4 km) upstream from Red Run.

DRAINAGE AREA.--146 mi² (378 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 934.40 ft (284.805 m)(revised)above mean sea level. Prior to Oct. 1, 1976; water-stage recorder and prior to June 1, 1960, nonrecording gage at datum 5.32 ft (1.622 m) higher.

REMARKS.--Records fair except those for period of no gage height record, which are poor. Low flow slightly regulated by industry at Rittman 2.5 mi (4.0 km) upstream.

AVERAGE DISCHARGE.--17 years, 128 ft³/s (3.625 m³/s), 11.91 in/yr (303 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s (354 m³/s) July 5, 1969, gage height, 16.02 ft (4.883 m); minimum daily, 3.2 ft³/s (0.091 m³/s) July 6, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959 reached a stage of 14.71 ft (4.319 m), discharge, 10,100 ft³/s (286 m³/s), by contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0300	*2120	60.0	*12.78	3.895	Apr. 3	0400	1700	48.1	12.16	3.706
Mar. 18	1400	1540	43.6	11.89	3.624						

Minimum daily discharge, 20 ft³/s (0.57 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	135	51	32	26	290	133	93	31	150	31	34
2	24	90	48	31	26	214	779	98	27	78	27	35
3	21	71	40	30	26	173	1510	125	27	45	26	38
4	21	62	38	29	25	275	931	169	26	171	25	32
5	20	58	36	29	25	337	926	316	63	309	34	30
6	21	51	38	28	25	206	639	218	110	118	36	36
7	25	47	95	28	26	163	429	139	58	61	219	33
8	31	45	70	28	26	140	299	104	39	73	109	31
9	36	47	58	27	28	130	220	87	105	54	63	30
10	62	50	52	27	30	120	183	76	80	38	67	30
11	60	48	49	26	34	120	152	65	42	37	93	27
12	56	45	47	26	44	150	130	58	36	95	116	25
13	50	43	46	51	72	680	113	54	34	42	84	39
14	45	41	45	43	130	760	108	51	30	33	55	152
15	41	40	44	38	100	400	94	45	27	31	45	92
16	37	40	43	36	90	250	83	42	27	31	41	134
17	34	39	42	34	80	176	78	42	27	40	74	288
18	33	39	41	32	72	1000	74	48	52	93	69	210
19	34	39	40	31	68	1090	67	39	42	58	52	203
20	35	38	48	30	66	739	62	37	34	42	46	172
21	47	36	54	29	64	544	60	35	31	41	48	120
22	38	35	48	29	74	510	61	32	29	55	149	103
23	36	35	45	28	200	537	124	33	27	38	109	86
24	53	36	42	28	1430	373	273	34	25	32	71	75
25	82	37	40	27	1870	236	194	34	30	37	59	109
26	67	40	38	27	1130	184	179	31	26	37	49	75
27	53	51	36	27	695	156	155	30	26	30	44	57
28	47	46	35	26	467	266	124	29	31	26	40	48
29	36	44	35	26	---	402	139	28	227	26	40	44
30	42	56	34	26	---	254	106	27	99	34	40	41
31	115	---	33	26	---	167	---	27	---	26	37	---
TOTAL	1329	1484	1411	935	6949	11042	8425	2239	1468	1981	1998	2437
MEAN	42.9	49.5	45.5	30.2	248	356	281	72.2	48.9	63.9	64.5	81.2
MAX	115	135	95	51	1870	1090	1510	316	227	309	219	288
MIN	20	35	33	26	25	120	60	27	25	26	25	25
CFSM	.29	.34	.31	.21	1.70	2.44	1.93	.50	.34	.44	.44	.56
IN.	.34	.38	.36	.24	1.77	2.81	2.15	.57	.37	.50	.51	.62

CAL YR 1976 TOTAL 40819 MEAN 112 MAX 1860 MIN 12 CFSM .77 IN 10.40
WTR YR 1977 TOTAL 41698 MEAN 114 MAX 1870 MIN 20 CFSM .78 IN 10.62

Note: No gage height record Dec. 1 to Feb. 23.

03116200 CHIPPEWA CREEK AT EASTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	1115	265	645	7.5	8.5	10.0	85	4.4	200	100	56	15
JUN 28...	1800	25	1100	7.6	29.0	.6	8	6.5	240	23	64	19

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	34	4.9	124	0	102	6.3	84	61	.1	7.3	324	3.0
JUN 28...	110	11	264	0	217	11	110	130	.3	9.1	584	.00

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.05	.74	.37	3	10	18	40	10	180	.0	60	7.5
JUN 28...	.04	6.8	.65	8	<10	10	240	13	410	.0	80	34

03117000 TUSCARAWAS RIVER AT MASSILLON, OH

LOCATION.--Lat 40°46'13", long 81°31'27", in sec. 20 T.10 N., R.9 W., Stark County, Hydrologic Unit 05040001, on left bank at sewage-treatment works, 0.7 mi (1.1 km) south of Massillon, and 3 mi (5 km) downstream from Newman Creek.

DRAINAGE AREA.--518 mi² (1,342 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to April 1938 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 916.00 ft (279.197 m) above mean sea level, adjustment of 1912. Prior to Aug. 19, 1944, nonrecording gage at same site and datum.

REMARKS.--Records good. Diversion from basin and regulation at Portage Lakes (including Nimisila Reservoir since 1939). See REMARKS for station 03116000.

AVERAGE DISCHARGE.--40 years, 426 ft³/s (12.06 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) July 5, 1969, gage height, 16.43 ft (5.008 m); minimum daily, 57 ft³/s (1.61 m³/s) Oct. 13, 14, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,880 ft³/s (110 m³/s) Apr. 3, gage height, 9.56 ft (2.914 m); minimum daily, 113 ft³/s (3.20 m³/s) Dec. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	471	142	135	148	868	455	325	215	522	133	170
2	186	355	140	131	148	641	1720	329	203	369	135	208
3	168	299	120	137	170	531	3680	424	177	192	131	325
4	159	261	115	144	157	641	3090	452	164	1200	126	217
5	157	254	113	146	159	921	2610	839	268	1340	142	168
6	157	222	118	140	157	626	2050	660	474	560	222	175
7	164	199	282	142	157	510	1310	447	376	303	1010	192
8	164	192	315	137	155	450	935	348	249	339	620	179
9	206	197	231	135	157	419	707	294	459	299	457	166
10	280	201	210	137	164	400	595	261	490	190	273	162
11	263	197	203	129	238	386	529	238	275	190	395	151
12	249	188	206	126	313	412	476	224	197	346	348	146
13	240	175	197	133	433	1980	433	212	179	229	348	188
14	231	166	181	135	526	2220	424	203	173	159	226	457
15	197	162	175	144	440	1450	376	192	162	131	184	436
16	170	164	173	142	355	842	336	181	151	142	170	405
17	159	159	175	124	308	565	313	175	148	190	233	752
18	157	162	166	135	287	1710	303	184	268	308	263	595
19	155	166	155	142	266	2840	299	201	242	263	201	931
20	170	162	188	142	252	2410	280	206	179	186	179	586
21	215	151	233	142	245	1650	275	190	166	188	168	421
22	197	148	212	140	261	1220	263	181	151	197	476	339
23	166	151	203	137	736	1360	414	175	144	157	428	278
24	233	140	184	137	2610	1060	771	175	137	122	275	245
25	360	142	162	146	3580	720	626	210	159	142	226	524
26	303	155	162	153	3340	553	538	190	162	159	199	362
27	252	184	164	159	2260	488	483	184	131	126	184	247
28	229	184	168	151	1370	632	421	179	135	118	170	192
29	210	177	166	140	---	1090	447	166	471	124	173	173
30	195	157	144	151	---	813	369	162	447	168	177	164
31	334	---	140	153	---	565	---	162	---	142	179	---
TOTAL	6541	5941	5543	4345	19392	30973	25528	8369	7152	9101	8451	9554
MEAN	211	198	179	140	693	999	851	270	238	294	273	318
MAX	360	471	315	159	3580	2840	3680	839	490	1340	1010	931
MIN	155	140	113	124	148	386	263	162	131	118	126	146

CAL YR 1976 TOTAL 181055 MEAN 495 MAX 4980 MIN 113
WTR YR 1977 TOTAL 140890 MEAN 386 MAX 3680 MIN 113

03117000 TUSCARAWAS RIVER AT MASSILLON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 14...	1420	2120	750	7.6	9.0	8.5	73	5.0	200	110	60	12
JUL 11...	1400	150	2200	7.6	26.5	8.4	100	5.4	600	440	210	19

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	54	5.5	106	0	87	4.3	66	110	.1	7.4	359	3.3
JUL 11...	240	5.8	204	0	167	8.2	88	560	.3	10	1250	2.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.06	.58	.25	8	10	71	1900	20	200	.0	90	5.0
JUL 11...	.19	.43	.18	4	20	6	50	19	320	.1	30	7.0

03117100 TUSCARAWAS RIVER AT NAVARRE, OH

LOCATION.--Lat 40°43'36", long 81°31'47", Stark County, Hydrologic Unit 05040001, on left bank at Navarre water treatment plant, 800 ft (244 m) upstream from bridge on Elton Road at Navarre, 3.5 mi (5.6 km) downstream from gaging station at Massillon, 1.2 mi (1.9 km) downstream from Pigeon Run, and just upstream from Wolf Creek.

DRAINAGE AREA.--534 mi² (1,383 km²).

PERIOD OF RECORD.--March 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1968 to current year.
pH: March 1968 to current year.
WATER TEMPERATURES: March 1968 to current year.
DISSOLVED OXYGEN: March 1968 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations. See records of daily discharge for gaging station at Massillon (station 03117000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 16,700 micromhos Jan. 27, 1970; minimum, 210 micromhos Mar. 4, 1976.
pH: Maximum, 10.7 units Oct. 27, 1971; minimum, 3.9 units Oct. 26, 1969.
WATER TEMPERATURES: Maximum, 30.0°C June 27, 28, 1969, Aug. 25, 1975, July 7, 16, 20, 1977; minimum, 0.0°C on several days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher May 29-31, June 21, Aug. 3, 1977; minimum, 0.0 mg/L on many days During 1971 to 1973.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,850 micromhos Feb. 12; minimum, 300 micromhos Mar. 13.
pH: Maximum, 9.1 units Dec. 25; minimum, 6.7 units July 21.
WATER TEMPERATURES: Maximum, 30.0°C July 7, 16, 20; minimum, 0.0°C on several days during winter period.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher May 29-31, June 21, Aug. 3; minimum, 1.7 mg/L June 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 14...	1045	2550	840	7.3	9.0	8.5	73	7.5	200	120	61	12
JUL 11...	1530	198	2150	7.7	26.5	8.1	100	5.4	550	380	190	19

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	60	5.7	99	0	81	7.9	63	120	.2	7.4	380	3.4
JUL 11...	230	5.8	214	0	176	6.8	92	510	.4	11	1160	2.4

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.07	.48	.31	3	20	11	2100	16	200	.0	50	7.8
JUL 11...	.31	1.3	.35	6	50	6	90	8	290	.0	20	7.6

03117100 TUSCARAWAS RIVER AT NAVARRE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3150	2460	2670	1350	3270	3030	3840	3330	4140	3660	2310	1950
2	2640	2070	2520	1530	3360	3000	3960	3270	4500	3420	2700	2280
3	2940	2340	2910	2250	3690	3360	4380	3690	4320	3600	2820	2160
4	3030	2550	3120	2670	3540	3180	4560	3510	3960	3570	2100	1470
5	3060	2760	3510	2880	3630	3330	4080	3630	4110	3630	1500	600
6	3090	2460	3120	2100	3630	3060	3900	3420	4230	3450	1590	1290
7	3300	2820	2970	2340	3450	2790	3810	3360	3930	3450	1860	1530
8	3060	2670	3120	2550	3780	2340	3900	3600	4050	3600	2130	1620
9	3150	2700	2970	2550	4110	3120	3960	3330	3960	3480	2280	1410
10	3330	1920	2860	2430	3690	3120	4050	3570	4170	3840	2190	1800
11	2010	1800	3210	2430	3660	3150	4200	3510	5520	3750	2430	1800
12	2190	1980	3090	2550	3300	2610	4110	3390	5850	4950	2430	1650
13	2370	1980	3030	2550	2880	2520	5130	3390	5280	3930	1560	300
14	2460	2100	2910	2520	2970	2550	4380	3330	3840	3120	1080	810
15	2370	2160	2970	2610	3030	2700	4500	3480	3330	2790	1410	1110
16	2790	2100	3120	2700	3210	2790	4200	3810	3120	2370	1920	1320
17	2940	2520	3120	2730	3390	2940	4590	3480	2820	2340	2190	1350
18	3030	2520	2940	2670	3240	2700	4620	3840	2880	2460	1920	780
19	3270	2820	3600	2940	3240	2850	5100	3990	2760	2370	990	750
20	3150	2730	3390	3270	3240	2700	4650	3450	3090	2430	1260	990
21	3210	2790	3450	2970	3510	2820	4410	3390	3210	2730	1260	1050
22	3510	2220	3240	3030	3120	2280	4260	3420	3270	2670	1320	1170
23	3030	2280	3420	3090	3180	2490	4140	3600	2640	1110	1320	690
24	3210	2190	3450	3060	3210	1290	3900	3360	1380	780	1560	1200
25	3030	1830	3210	3030	3210	2910	3960	3450	1080	870	1620	1410
26	2190	1800	3240	2880	3450	3090	3960	3420	1230	1050	1830	1470
27	2640	1960	3510	2940	3630	3090	4410	3390	1590	1200	2070	1560
28	2820	2220	3570	2580	3450	2850	4710	3900	1980	1590	1950	1590
29	2640	2340	3000	2700	3660	3030	4140	3420	---	---	1470	1040
30	2910	2370	3060	2820	3450	2910	4230	3540	---	---	1620	1410
31	3060	2400	---	---	3540	3030	4710	3690	---	---	1680	1320
MONTH	3510	1800	3600	1350	4110	1290	5130	3270	5850	780	2820	300

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1710	1380	1860	1380	3510	3000	2010	1020	2430	1980	4110	2610
2	1950	570	1890	1560	3570	3060	1740	1080	2790	2460	3420	2550
3	720	450	1920	1290	---	---	1770	1260	2970	2490	2460	1590
4	780	450	1500	1290	---	---	1740	480	2880	2580	2820	1890
5	990	810	1650	750	---	---	1170	750	3000	2640	2580	2160
6	1260	960	1740	960	3000	2460	1800	1080	3270	2190	3210	2580
7	1500	1260	2040	1110	3630	1890	2040	1500	2400	690	3540	2460
8	1530	1170	1710	1320	2610	1980	1950	1380	990	690	3300	2580
9	1440	1170	1980	1560	2550	1830	2400	1170	1290	720	3570	3000
10	1530	1170	2040	1680	2190	1620	2730	1950	1800	1140	3660	2910
11	1560	1230	2100	1830	2550	2100	2070	1740	2610	1260	3570	3120
12	1590	1200	2220	1860	2220	1920	2790	1080	2490	1290	3450	2850
13	1770	1290	2250	1860	2430	2040	2430	1080	2580	1680	3780	2880
14	1770	1410	2310	1860	2520	2280	2580	2130	2820	1770	3600	1770
15	1740	1320	2430	1830	2550	2220	2580	1950	2070	1680	2550	1380
16	1920	1740	2430	2100	2550	2190	2640	2160	2370	1980	2970	2280
17	2190	1830	2580	2040	2610	2400	2490	1650	2670	1710	2880	1290
18	2190	1890	2610	2220	3180	2520	2370	1200	2760	1410	1590	1380
19	2280	2010	2580	2310	2940	1470	1560	1170	2070	1710	1500	510
20	2460	1890	2640	2370	2040	1740	1620	1320	2370	2040	1860	1320
21	2430	2040	2610	1980	2340	2100	1980	1260	2850	2430	2130	1710
22	2610	2190	2730	2520	2610	2220	2310	1110	3120	1290	2400	2100
23	2580	2040	2880	2490	2790	2130	2700	1620	2430	1350	2640	2250
24	2040	1020	2880	2640	2790	2310	2190	1920	2580	1770	2400	1950
25	1380	510	3000	2580	2610	2280	2400	1500	2280	1740	2250	1170
26	1440	1200	2820	2160	2790	2430	3000	2160	2730	2130	2220	1260
27	1710	1320	3030	2460	2820	1890	3030	1920	2760	2340	2730	2190
28	2040	1710	3090	2580	2460	2040	2550	2130	3030	2550	2310	2100
29	2250	1560	2970	2580	2970	930	2910	2340	3270	2580	2550	2370
30	2070	1470	2970	2760	1980	1080	2670	2370	3510	2640	2700	2520
31	---	---	3030	2910	---	---	3000	1950	3750	2490	---	---
MONTH	2610	450	3090	750	3630	930	3030	480	3750	690	4110	510
YEAR	5850	300										

03117100 TASCARAWAS RIVER AT NAVARRE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.8	7.5	8.1	7.5	7.9	7.5	8.1	7.6	7.8	7.3	7.9	7.6
2	7.8	7.5	7.9	7.6	8.0	7.6	8.0	7.9	7.8	7.3	8.0	7.5
3	7.8	7.6	8.0	7.7	8.0	7.6	7.9	7.7	7.8	7.1	8.1	7.6
4	7.7	7.6	8.0	7.6	7.9	7.7	7.9	7.5	7.8	7.5	7.9	7.6
5	7.8	7.4	8.0	7.6	8.0	7.8	8.0	7.5	8.2	7.6	7.9	7.7
6	7.8	7.4	8.0	7.7	7.9	7.5	7.9	7.4	8.1	7.9	8.0	7.6
7	7.8	7.3	8.0	7.8	7.9	7.4	8.1	7.4	8.1	7.9	8.0	7.8
8	7.7	7.4	8.0	7.7	8.0	7.7	8.1	7.3	8.4	7.9	8.0	7.6
9	7.9	7.6	8.0	7.7	7.9	7.6	8.1	7.9	8.1	7.7	8.0	7.6
10	8.1	7.8	8.0	7.6	8.0	7.5	8.0	7.6	8.0	7.3	7.9	7.7
11	7.9	7.6	7.9	7.4	8.1	7.7	7.9	7.4	7.9	7.5	7.9	7.7
12	8.0	7.5	7.9	7.5	8.1	7.9	7.9	7.4	8.2	7.9	8.5	7.8
13	7.9	7.5	8.0	7.4	8.2	7.9	8.0	7.4	8.2	8.1	7.9	7.4
14	7.9	7.5	8.4	7.7	8.1	7.7	7.7	7.3	8.2	7.9	7.5	7.2
15	7.9	7.3	7.9	7.8	8.1	7.6	7.9	7.6	8.0	7.6	7.7	7.3
16	7.9	7.5	7.9	7.4	8.2	7.6	8.0	7.8	8.0	7.5	7.8	7.1
17	8.0	7.8	7.9	7.5	8.5	7.8	8.0	7.8	7.9	7.5	8.0	7.4
18	7.9	7.2	7.9	7.5	8.2	8.0	7.9	7.7	7.9	7.6	7.9	7.4
19	7.8	7.3	7.9	7.4	8.2	8.0	8.1	7.6	7.8	7.4	7.6	7.3
20	7.7	7.5	8.1	7.5	8.1	7.7	7.8	7.3	7.8	7.3	7.7	7.5
21	7.9	7.3	8.1	7.7	8.3	7.8	7.8	7.6	7.8	7.6	7.8	7.5
22	7.8	7.6	7.9	7.7	8.1	7.4	7.9	7.6	7.8	7.5	7.9	7.5
23	8.0	7.5	7.9	7.3	8.0	7.5	7.9	7.5	7.7	7.2	8.1	7.7
24	7.8	7.7	8.1	7.4	8.0	7.9	7.8	7.2	8.0	7.3	8.2	7.5
25	7.8	7.6	7.9	7.5	9.1	8.0	7.9	7.3	7.7	7.4	8.3	7.4
26	7.8	7.6	7.9	7.4	8.7	8.0	7.8	7.1	7.8	7.5	8.1	7.6
27	7.8	7.4	8.0	7.8	8.1	7.8	8.0	7.3	7.8	7.5	8.0	7.7
28	7.8	7.4	7.8	7.7	8.0	7.6	8.0	7.5	7.8	7.7	8.0	7.8
29	7.7	7.4	8.1	7.7	8.1	7.4	8.0	7.5	---	---	8.0	7.6
30	7.9	7.6	8.0	7.5	8.0	7.5	7.9	7.5	---	---	7.9	7.7
31	---	---	---	---	7.9	7.6	7.9	7.3	---	---	9.1	7.7
MONTH	8.1	7.2	8.4	7.3	9.1	7.4	8.1	7.1	8.4	7.1	9.1	7.1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	7.5	7.6	7.3	8.4	7.2	7.4	7.2	8.1	7.4	7.8	7.4
2	8.1	7.4	7.6	7.3	7.7	7.3	7.4	7.2	8.1	7.3	7.9	7.5
3	7.6	7.3	7.6	7.4	---	---	7.5	7.3	8.1	7.3	7.6	7.4
4	7.6	7.3	7.5	7.2	---	---	7.4	7.1	8.1	7.3	7.8	7.5
5	7.6	7.0	7.6	7.3	---	---	7.3	7.1	7.8	6.9	8.0	7.6
6	7.5	7.3	7.6	7.4	7.9	7.5	7.4	7.1	7.5	7.1	8.0	7.4
7	7.7	7.4	7.6	7.3	7.9	7.5	7.4	7.2	7.4	7.2	7.8	7.3
8	8.0	7.5	7.7	7.4	7.8	7.4	7.4	7.3	7.4	7.2	7.9	7.5
9	8.1	7.6	7.7	7.6	7.8	7.5	7.6	7.3	7.4	7.3	8.0	7.5
10	8.0	7.6	8.5	7.5	7.7	7.4	7.7	7.5	7.5	7.3	8.1	7.6
11	8.1	7.6	7.9	7.5	7.7	7.7	7.6	7.4	7.5	7.3	8.1	7.6
12	8.0	7.7	7.6	7.5	7.7	7.5	7.5	7.2	7.5	7.3	7.9	7.5
13	8.1	7.6	7.5	7.4	7.9	7.5	7.5	7.1	7.7	7.3	7.7	7.5
14	8.4	7.7	7.6	7.3	7.7	7.4	7.8	7.2	7.6	7.5	7.8	7.5
15	8.2	7.7	7.6	7.4	7.8	7.4	7.6	7.2	7.5	7.4	7.8	7.6
16	8.1	7.7	7.8	7.4	7.9	7.3	8.1	7.1	7.6	7.4	7.8	7.6
17	8.3	7.9	7.9	7.5	8.1	7.3	8.0	7.2	7.6	7.3	7.7	7.4
18	8.1	7.6	7.9	7.5	8.2	7.2	7.6	7.3	7.6	7.4	7.7	7.5
19	8.1	7.7	7.9	7.4	7.8	7.2	7.7	7.1	7.6	7.4	7.6	7.4
20	8.2	7.8	7.7	7.5	8.1	7.5	7.5	7.3	7.7	7.4	7.7	7.5
21	8.3	7.9	7.7	7.4	8.3	7.3	7.7	6.7	7.8	7.6	7.7	7.6
22	8.0	7.8	7.8	7.4	8.2	7.3	7.7	7.2	7.6	7.5	7.7	7.5
23	8.0	7.8	7.7	7.4	8.1	7.3	8.0	7.4	7.6	7.4	7.7	7.3
24	8.0	7.8	7.7	7.3	7.9	7.2	8.0	7.5	7.6	7.3	7.7	7.5
25	8.1	7.7	7.7	7.3	7.7	7.3	7.7	7.1	7.7	7.3	7.6	7.4
26	8.1	7.4	7.7	7.3	8.0	7.4	8.0	7.4	7.6	7.2	7.7	7.5
27	8.0	7.4	8.0	7.4	7.9	7.5	8.0	7.3	7.9	7.5	7.6	7.3
28	8.0	7.4	8.2	7.4	7.8	7.2	8.0	6.8	8.1	7.5	7.6	7.4
29	7.8	7.6	8.7	7.5	7.5	7.2	7.8	7.0	7.9	7.5	7.6	7.5
30	7.7	7.4	8.5	7.5	7.4	7.2	7.8	7.4	7.8	7.4	7.6	7.5
31	---	---	8.5	7.1	---	---	8.1	7.4	7.8	7.2	---	---
MONTH	8.4	7.0	8.7	7.1	8.4	7.2	8.1	6.7	8.1	6.9	8.1	7.3
YEAR	9.1	6.7										

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	14.5	8.5	6.5	2.5	1.5	1.0	0.0	1.5	0.0	---	---
2	18.0	16.0	7.5	6.0	2.5	1.0	1.5	0.5	3.0	0.0	---	---
3	18.5	16.5	9.0	7.0	2.0	0.0	2.0	0.5	2.5	1.0	---	---
4	19.0	16.0	8.0	6.5	2.0	1.5	3.5	1.5	2.0	0.5	---	---
5	19.5	16.5	7.5	6.5	2.5	0.5	2.5	1.0	0.5	0.0	---	---
6	18.5	17.0	7.5	6.0	4.0	1.5	2.5	0.5	0.5	0.0	---	---
7	17.0	16.0	7.0	6.0	4.0	2.5	2.0	0.5	0.5	0.0	---	---
8	15.5	14.5	6.0	5.0	3.0	1.5	2.0	0.0	0.0	0.0	---	---
9	14.5	13.0	6.0	4.5	2.0	1.0	1.5	0.5	0.5	0.0	---	---
10	13.5	12.0	6.5	5.5	4.5	2.0	1.5	0.5	0.5	0.0	---	---
11	15.0	12.5	7.0	6.0	4.5	3.5	1.0	0.0	0.0	0.0	12.5	9.5
12	15.5	12.5	6.5	5.5	4.0	3.5	1.5	0.0	0.0	0.0	11.5	10.0
13	17.0	13.5	6.5	5.0	3.5	2.0	1.5	0.0	---	---	11.0	9.5
14	15.5	13.0	5.5	4.0	3.0	1.0	2.0	1.5	---	---	9.5	8.5
15	15.0	13.0	6.0	4.0	4.5	2.5	2.0	1.0	---	---	10.0	7.5
16	13.5	11.5	6.0	4.0	4.5	3.5	1.0	0.0	---	---	11.5	9.5
17	12.0	10.5	6.0	4.0	4.0	3.5	0.0	0.0	---	---	10.5	9.0
18	11.5	9.5	7.0	5.0	4.5	3.0	1.0	0.0	---	---	9.5	4.5
19	11.5	9.0	7.5	6.0	5.5	3.0	1.5	0.0	---	---	6.0	4.5
20	11.0	10.0	7.0	5.5	6.0	4.0	2.0	0.0	---	---	6.0	5.5
21	10.0	9.0	6.0	5.0	3.5	2.0	1.5	0.5	---	---	6.0	4.5
22	9.0	8.0	5.0	4.0	2.0	0.5	2.0	0.0	---	---	7.0	6.0
23	8.5	6.5	4.5	3.5	1.5	0.5	1.5	0.0	---	---	5.5	4.0
24	8.5	7.5	4.0	3.0	1.5	0.0	2.0	1.0	---	---	7.0	5.0
25	10.0	9.0	5.0	3.5	1.5	0.5	2.5	1.5	---	---	7.5	5.0
26	9.0	8.5	7.5	5.0	1.5	0.5	2.5	0.0	---	---	9.0	5.5
27	8.5	7.5	9.5	7.5	1.5	0.0	1.0	0.0	---	---	10.5	7.0
28	8.5	6.5	8.5	6.0	2.0	1.5	1.0	0.0	---	---	11.5	10.0
29	9.0	6.0	6.0	3.0	1.5	0.0	0.0	0.0	---	---	13.5	10.5
30	8.0	7.0	3.0	1.5	1.5	0.0	1.0	0.0	---	---	16.0	12.5
31	8.5	7.5	---	---	1.0	0.0	0.5	0.0	---	---	15.0	12.5
MONTH	19.5	6.0	9.5	1.5	6.0	0.0	3.5	0.0	3.0	0.0	16.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	10.5	19.0	13.5	23.5	20.5	24.0	21.0	25.5	22.0	26.5	23.0
2	11.5	10.5	18.5	17.0	21.5	19.5	25.0	21.5	25.5	20.5	26.5	23.5
3	12.0	10.5	18.5	17.0	---	---	25.5	20.5	26.5	21.0	25.0	23.0
4	11.5	11.0	17.5	17.0	---	---	24.0	20.0	27.0	22.0	25.0	21.5
5	11.0	9.0	19.0	16.5	---	---	24.5	21.5	27.0	23.0	25.0	22.0
6	9.0	7.5	20.5	18.0	20.0	17.5	27.5	24.0	25.5	24.0	24.5	22.5
7	7.5	6.5	22.0	19.0	18.0	16.0	30.0	25.5	25.0	22.5	24.5	21.0
8	7.5	5.5	20.5	16.5	17.0	14.5	29.5	26.0	24.0	23.0	24.5	21.0
9	9.0	5.5	16.5	14.5	17.0	14.0	28.5	26.0	24.5	22.0	24.5	21.0
10	11.0	7.5	16.0	12.5	19.0	15.0	27.5	24.0	25.5	23.0	23.5	20.5
11	15.0	10.0	18.5	12.5	19.0	15.5	27.5	24.0	27.0	24.0	22.0	19.0
12	18.0	14.0	18.5	14.5	18.0	17.0	27.5	24.5	26.0	23.5	21.0	17.5
13	19.5	16.0	21.5	16.5	21.5	17.0	29.0	25.0	25.0	24.0	20.5	18.0
14	20.0	17.0	23.0	18.5	21.0	19.0	29.0	24.0	25.5	23.0	21.5	19.0
15	19.5	16.0	23.0	18.0	23.5	19.0	29.0	24.5	25.0	22.0	19.5	18.5
16	17.0	15.5	23.5	19.0	24.5	20.0	30.0	25.5	25.5	22.5	19.0	18.0
17	17.5	14.5	24.5	20.0	25.5	21.5	28.5	25.0	25.0	23.5	20.0	18.0
18	17.0	15.5	25.5	22.0	25.0	22.0	29.5	24.0	24.5	21.5	21.0	19.0
19	19.0	15.5	26.5	22.5	25.5	21.5	29.5	26.0	22.0	19.5	21.0	19.5
20	21.5	17.5	27.5	22.5	25.0	21.0	30.0	26.0	22.5	18.5	20.5	19.5
21	22.0	19.0	27.5	23.0	25.0	21.0	29.0	24.5	21.0	19.5	19.5	18.5
22	21.0	20.0	27.5	23.0	23.0	19.5	28.0	23.5	22.5	19.0	19.0	17.5
23	20.0	18.0	27.0	23.0	24.0	19.0	27.5	23.0	23.0	20.0	20.0	17.0
24	17.5	15.0	27.0	23.5	23.0	19.5	27.0	22.5	21.5	20.5	20.0	18.5
25	14.5	12.5	26.5	23.5	25.0	21.0	26.0	24.0	22.0	18.0	20.5	18.5
26	13.5	12.5	25.5	21.0	27.0	22.0	25.0	21.5	23.0	18.0	21.5	19.0
27	15.5	11.5	25.5	20.0	26.5	22.5	25.0	20.5	25.0	21.0	20.5	18.5
28	14.5	12.5	25.5	20.0	25.5	23.0	25.5	20.0	27.0	23.0	19.0	17.5
29	14.5	11.0	25.5	19.5	26.0	22.5	24.0	22.0	26.0	24.0	18.5	16.5
30	16.5	11.0	24.5	19.5	23.5	22.0	25.5	21.0	25.5	23.5	19.0	16.5
31	---	---	24.5	20.5	---	---	25.5	22.0	26.0	22.5	---	---
MONTH	22.0	5.5	27.5	12.5	27.0	14.0	30.0	20.0	27.0	18.0	26.5	16.5
YEAR	30.0	0.0										

03117100 TUSCARAWAS RIVER AT NAVARRE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.1	5.5	8.3	7.5	11.6	10.1	11.2	9.1	8.2	6.6	9.2	9.0
2	5.9	5.2	9.0	8.3	11.7	9.6	11.0	9.1	8.8	6.5	10.2	8.9
3	6.3	5.0	8.9	8.2	11.6	10.1	10.5	8.9	7.8	6.3	9.9	9.6
4	6.5	4.9	8.9	8.0	11.0	9.6	10.5	8.5	7.3	6.0	9.5	9.1
5	6.8	4.9	8.9	8.0	12.0	9.2	11.1	8.8	8.3	6.1	9.4	9.1
6	5.9	4.9	9.7	8.0	11.0	9.1	10.0	9.1	8.5	6.5	9.8	9.4
7	5.4	4.8	9.4	8.1	9.3	8.6	11.0	9.0	8.3	6.5	9.5	9.1
8	5.8	4.8	9.9	8.1	9.5	8.1	11.4	9.1	8.9	6.4	9.2	8.9
9	6.4	4.8	10.4	8.7	10.0	9.5	11.4	9.1	9.3	6.8	8.9	8.3
10	8.3	5.4	9.6	8.5	10.1	9.5	10.8	8.9	9.0	6.4	8.4	7.7
11	7.8	6.5	10.1	8.1	10.3	9.1	11.4	8.9	7.3	6.3	8.0	7.6
12	8.1	6.3	10.2	7.8	9.5	8.9	10.6	8.9	7.6	7.3	7.7	7.2
13	7.5	5.7	10.7	8.3	10.7	9.1	9.9	8.1	7.9	7.5	7.8	7.0
14	7.2	5.3	11.0	8.7	11.2	9.9	8.5	6.8	8.4	7.6	8.5	7.3
15	7.7	5.7	11.2	8.8	11.2	9.8	8.6	6.8	8.6	8.3	8.6	8.3
16	7.4	5.9	11.5	8.6	10.4	9.3	9.1	7.1	8.6	8.3	8.7	8.2
17	7.9	5.7	11.4	8.8	10.0	8.8	9.6	7.4	8.6	8.2	9.3	8.4
18	8.3	6.4	11.2	8.6	11.3	8.9	9.3	7.2	9.5	8.4	10.1	8.5
19	8.8	6.5	11.2	8.0	11.5	9.1	8.9	7.0	9.4	8.3	9.8	8.7
20	7.3	6.2	11.4	8.2	9.3	8.3	7.5	6.5	9.5	8.7	8.8	8.0
21	7.8	6.2	11.3	8.1	11.0	8.4	7.9	6.8	9.8	8.8	9.8	8.6
22	8.0	6.2	11.2	8.2	11.4	9.6	8.6	7.0	9.6	9.0	9.6	8.2
23	8.8	6.9	11.5	8.7	11.3	10.0	9.0	7.4	9.2	8.5	10.2	8.5
24	7.6	6.9	11.6	9.2	11.1	9.9	8.7	7.5	9.7	9.0	10.1	9.8
25	6.9	6.6	11.7	9.3	10.4	9.4	9.5	7.3	9.5	9.2	10.1	9.8
26	7.4	6.5	9.6	8.4	11.2	9.2	9.7	7.6	9.4	8.9	9.8	9.3
27	8.3	7.0	10.1	7.7	11.5	9.6	9.6	8.0	8.9	8.3	9.4	8.8
28	8.5	6.8	8.3	7.1	11.1	9.8	10.2	8.0	9.0	8.0	8.7	8.1
29	9.5	7.1	11.4	7.8	11.5	9.7	10.0	8.0	---	---	8.5	8.0
30	8.7	7.5	12.0	9.3	10.8	9.1	8.8	7.4	---	---	8.0	6.9
31	7.8	7.4	---	---	10.7	8.7	9.0	7.1	---	---	10.7	6.8
MONTH	9.5	4.8	12.0	7.1	12.0	8.1	11.4	6.5	9.8	6.0	10.7	6.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	9.9	10.1	6.9	15.0	5.8	4.4	3.0	13.2	4.2	8.8	3.6
2	11.1	9.8	7.5	6.1	10.4	5.9	4.4	2.6	13.8	4.4	8.5	3.5
3	9.7	8.6	7.3	6.0	---	---	5.6	3.8	15.0	4.5	5.3	3.3
4	8.8	7.7	6.6	5.3	---	---	6.3	4.0	14.9	4.3	7.1	3.5
5	8.1	6.7	6.2	5.3	---	---	4.9	3.6	12.0	4.0	8.5	3.6
6	6.9	5.8	6.2	4.7	7.2	5.4	4.5	4.0	6.3	3.1	9.8	3.5
7	9.3	6.1	6.9	5.0	7.6	3.7	5.2	3.8	5.0	2.7	8.5	4.2
8	10.0	9.3	7.2	5.4	7.3	5.3	5.4	3.9	4.7	3.0	8.3	3.9
9	9.7	9.1	7.9	6.2	7.2	5.7	5.1	3.1	5.2	4.6	10.5	3.8
10	9.3	8.3	7.4	6.5	6.5	4.8	6.8	3.6	4.7	3.8	10.6	3.9
11	8.9	7.6	7.8	6.4	7.1	5.2	8.0	4.4	4.3	2.8	10.9	4.4
12	8.7	7.1	7.4	5.6	7.0	5.4	5.2	3.0	4.5	3.1	8.3	4.5
13	8.7	6.4	7.5	5.0	8.2	5.3	5.5	3.3	3.9	2.9	6.6	3.9
14	8.9	5.8	8.9	4.6	7.6	5.1	10.0	3.3	4.3	2.8	5.1	2.2
15	9.3	5.9	9.8	4.5	10.5	5.3	10.0	4.4	5.4	3.6	4.5	2.8
16	8.6	5.9	10.2	4.6	12.2	5.3	13.6	4.2	6.3	3.7	5.0	4.3
17	10.0	6.2	11.6	5.0	13.4	5.5	11.9	3.7	7.2	3.8	4.9	3.9
18	8.7	6.2	11.8	5.2	12.6	5.4	7.5	3.6	6.2	3.3	5.1	3.9
19	10.0	6.2	11.7	4.1	8.3	2.7	7.9	3.1	5.8	3.7	6.0	4.9
20	11.0	5.7	9.0	3.8	11.9	5.2	7.0	2.9	6.8	4.2	5.1	4.8
21	10.1	5.2	8.4	2.1	15.0	5.7	7.8	3.2	6.6	4.4	5.1	4.6
22	7.2	4.8	8.3	3.4	13.1	8.0	9.6	4.6	6.0	4.0	5.3	4.9
23	5.7	4.2	8.4	3.2	12.3	7.3	11.4	4.2	4.6	4.1	5.9	4.8
24	6.0	4.5	9.4	3.2	11.3	6.4	11.6	4.4	5.0	3.8	5.5	4.4
25	7.0	6.1	8.3	3.6	9.5	5.4	8.1	4.2	6.4	4.3	5.4	4.4
26	7.4	6.8	9.4	3.6	10.5	3.8	11.9	4.5	7.5	4.4	5.2	4.4
27	7.8	6.4	11.4	4.3	10.1	4.9	12.2	4.5	8.4	4.4	5.3	4.4
28	7.3	6.0	13.6	5.4	7.8	4.5	13.3	4.5	10.4	4.2	5.5	4.4
29	8.9	7.1	15.0	5.8	4.9	2.0	8.9	4.5	9.0	4.2	5.7	4.7
30	9.6	7.4	15.0	7.0	4.4	1.7	10.3	4.2	8.1	3.8	5.6	4.7
31	---	---	15.0	7.7	---	---	11.1	4.2	8.7	3.9	---	---
MONTH	11.5	4.2	15.0	2.1	15.0	1.7	13.6	2.6	15.0	2.7	10.9	2.2
YEAR	15.0	1.7										

03117500 SANDY CREEK AT WAYNESBURG, OH

LOCATION.--Lat 40°40'21", long 81°15'36", in sec. 21, T.17 N., R.7 W., Stark County, Hydrologic Unit 05040001, on upstream side of left pier of bridge on State Highway 183 in Waynesburg, 300 ft (91 m) downstream from Little Sandy Creek, and 0.6 mi (1.0 km) upstream from Indian Run.

DRAINAGE AREA.--253 mi^2 (655 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to December 1938 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 923: 1939-40. WSP 1555: 1940(M), 1943(M), 1947(M), 1952, 1956(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 955.00 ft (291.084 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--39 years, 261 ft^3/s (7.392 m^3/s), 14.01 in/yr (356 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (425 m^3/s) Jan. 22, 1959, gage height, 10.05 ft (3.063 m), from rating curve extended above 8,000 ft^3/s (227 m^3/s) on basis of contracted-opening and flow over road measurement of peak flow; minimum, 6.9 ft^3/s (0.20 m^3/s) Sept. 12, 13, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 25	0830	3010	85.2	6.40	1.951	Apr. 3	1130	*3950	112	*7.36	2.243
Mar. 19	0230	2150	60.9	5.22	1.591						

Minimum discharge, 41 ft^3/s (1.16 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	260	62	68	60	595	305	215	64	191	90	51
2	62	220	59	66	60	435	1070	210	62	148	80	59
3	59	190	54	66	60	370	3650	288	59	95	72	148
4	56	170	54	66	60	425	2510	253	59	248	67	87
5	54	150	56	64	60	609	2500	311	72	262	64	70
6	51	140	56	62	60	466	1790	326	92	191	75	64
7	51	140	120	60	60	379	1290	317	85	123	343	64
8	54	130	190	60	60	323	1090	285	72	164	367	56
9	59	123	160	60	60	288	781	231	151	151	296	51
10	92	128	130	60	60	273	616	207	167	115	199	48
11	90	133	120	60	65	248	544	188	117	90	156	43
12	72	125	110	60	80	248	463	172	87	110	141	41
13	70	117	100	60	100	1160	397	156	77	125	128	56
14	67	112	98	60	220	1080	364	151	72	97	112	696
15	62	107	94	60	180	825	334	138	67	77	97	419
16	56	102	86	60	160	577	305	130	62	95	90	290
17	54	100	84	60	140	431	288	123	62	148	95	370
18	54	102	78	60	130	1010	270	117	130	212	97	296
19	51	100	74	60	130	1730	262	138	138	123	87	1040
20	54	97	100	60	120	1320	250	128	95	102	72	910
21	70	95	140	60	120	1060	253	110	72	128	67	521
22	72	95	110	60	130	816	228	100	62	560	85	355
23	64	92	100	60	350	693	253	92	56	302	90	279
24	110	85	92	60	1680	560	346	90	54	204	72	228
25	200	90	84	60	2920	460	328	85	56	270	64	239
26	160	95	80	60	2150	403	279	77	56	302	59	242
27	140	107	76	60	1270	364	259	72	51	199	54	204
28	120	110	74	60	874	406	239	70	51	148	51	164
29	110	105	72	60	---	527	282	67	54	115	48	143
30	130	80	72	60	---	406	253	64	54	112	59	128
31	210	---	70	60	---	346	---	64	---	100	56	---
TOTAL	2618	3700	2855	1892	11419	18833	21799	4975	2356	5307	3433	7362
MEAN	84.5	123	92.1	61.0	408	608	727	160	78.5	171	111	245
MAX	210	260	190	68	2920	1730	3650	326	167	560	367	1040
MIN	51	80	54	60	60	248	228	64	51	77	48	41
CFSM	.33	.49	.36	.24	1.61	2.40	2.87	.63	.31	.68	.44	.97
IN.	.38	.54	.42	.28	1.68	2.77	3.21	.73	.35	.78	.50	1.08

CAL YR 1976 TOTAL 92074 MEAN 252 MAX 2450 MIN 50 CFSM 1.00 IN 13.54
WTR YR 1977 TOTAL 86549 MEAN 237 MAX 3650 MIN 41 CFSM .94 IN 12.73

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03117500 SANDY CREEK AT WAYNESBURG, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1000	581	310	7.4	4.5	10.8	83	1.2	120	74	33	9.2
JUN 27...	1745	47	600	8.2	23.5	11.4	130	1.9	220	93	65	14

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	10	2.6	56	0	46	3.6	62	16	.1	7.7	168	1.6
JUN 27...	22	3.0	153	1	127	1.6	97	33	.2	6.0	317	.19

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.01	.03	.05	1	10	3	60	7	170	.0	30	--
JUN 27...	.01	.03	.09	2	<10	3	130	7	280	.2	10	7.4

03118000 MIDDLE BRANCH NIMISHILLEN CREEK AT CANTON, OH

LOCATION.--Lat 40°50'29", long 81°21'14" in NE 1/4 sec. 27, T.11 N., R.8 W., Stark County, Hydrologic Unit 05040001, on right bank at downstream side of bridge on Martindale Road, 2.4 mi (3.9 km) upstream from mouth, and 0.5 mi (0.8 km) northeast of Canton.

DRAINAGE AREA.--43.1 mi² (112 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1941 to current year.

REVISED RECORDS.--WSP 1033: 1942(M), 1943(P), 1944(M). WSP 1305: 1946(M). WSP 1143: 1948. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,046.60 ft (319.004 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good except those for winter periods, which are fair. Part of municipal water supply for city of Canton is pumped from its northeast well field; a portion of pumpage is believed to be derived from creek as recharge to aquifer supplying well field. Mean pumpage for water year 1977, 12.0 ft³/s (0.34 m³/s). At times low flow regulated by small pools above station.

AVERAGE DISCHARGE.--36 years, 34.0 ft³/s (0.963 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s (70.0 m³/s) Jan. 22, 1959, gage height, 6.50 ft (1.981 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.2 ft³/s (0.006 m³/s) Nov. 9, 1944, Sept. 19, 1962.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0800	594	16.8	5.37	1.637	Apr. 3	0800	*647	18.3	*5.53	1.686

Minimum daily discharge, 9.5 ft³/s (0.27 m³/s) Dec. 4, 5. (Result of ice).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	35	12	11	10	54	37	35	15	40	13	12
2	16	26	11	11	10	41	202	38	15	22	13	14
3	15	23	10	11	10	37	563	52	14	15	12	38
4	14	22	9.5	11	10	55	200	45	14	43	12	28
5	15	20	9.5	10	10	89	208	61	19	35	16	17
6	15	19	10	10	10	49	113	50	22	19	18	35
7	15	18	15	10	10	39	85	38	19	25	133	33
8	15	17	33	10	10	34	81	31	16	105	57	20
9	15	18	20	10	10	29	59	26	30	29	45	15
10	17	19	18	10	14	32	52	25	22	19	26	14
11	15	21	18	10	21	30	46	24	16	17	24	13
12	15	20	17	10	28	31	40	23	15	19	21	12
13	15	19	16	10	37	218	37	22	14	17	17	14
14	15	18	15	10	42	129	36	21	15	15	15	35
15	15	16	14	10	36	72	34	20	14	14	14	30
16	15	17	13	10	28	48	31	18	14	15	14	31
17	14	16	13	10	24	36	31	18	15	32	20	68
18	13	16	13	10	22	179	29	18	17	31	15	40
19	14	17	13	10	21	259	31	18	14	22	14	26
20	16	16	17	10	20	113	31	18	13	17	13	49
21	20	16	24	10	21	96	35	16	14	22	13	46
22	18	15	21	10	28	83	32	13	13	22	21	26
23	16	15	16	10	35	84	56	15	13	15	17	22
24	22	15	14	10	350	57	122	13	14	13	14	28
25	35	15	13	10	502	43	91	15	16	18	13	141
26	28	15	13	10	189	37	67	16	14	28	13	99
27	22	18	13	10	117	34	53	16	13	17	13	60
28	19	17	12	10	87	60	44	15	17	14	12	32
29	18	16	12	10	---	97	53	15	31	16	12	24
30	17	12	12	10	---	55	40	14	21	17	13	22
31	26	---	11	10	---	43	---	14	---	14	12	---
TOTAL	542	547	458.0	314	1712	2263	2544	763	499	747	665	1036
MEAN	17.5	18.2	14.8	10.1	61.1	73.0	84.8	24.6	16.6	24.1	21.5	34.5
MAX	35	35	33	11	502	259	563	61	31	105	133	141
MIN	13	12	9.5	10	10	29	29	13	13	13	12	12

CAL YR 1976 TOTAL 16407.9 MEAN 44.8 MAX 523 MIN 8.1
WTR YR 1977 TOTAL 12090.0 MEAN 33.1 MAX 563 MIN 9.5

03118000 MIDDLE BRANCH NIMISHILLEN CREEK AT CANTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATUHE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAR 14...	1430	102	565	7.6	9.0	9.4	81	4.8	200	120	62	12
JUL 11...	1100	14	595	7.6	25.0	8.3	99	2.6	250	110	78	14

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIUE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	24	6.5	100	0	82	4.0	85	55	.2	8.2	302	4.5
JUL 11...	23	10	178	0	146	7.2	87	44	.2	9.0	353	2.9

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.04	.26	.20	4	10	12	90	8	110	.0	40	5.3
JUL 11...	.09	.10	.13	2	10	2	60	4	70	.0	0	8.1

03118500 NIMISHILLEN CREEK AT NORTH INDUSTRY, OH

LOCATION.--Lat 40°44'03", long 81°21'08", in sec. 35, T.10 N., R.8 W., Stark County, Hydrologic Unit 05040001, on left bank just downstream from railroad bridge, 1 mi (2 km) southeast of North Industry, and 3 mi (5 km) downstream from Sherrick Run.

DRAINAGE AREA.--175 mi² (453 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1113: 1924-30, 1932-37, 1938(M), 1939-40, 1943(M), 1945(P). WSP 1555: 1929, 1935, 1937(M), 1940(M), 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 970.77 ft (295.891 m) above mean sea level, adjustment of 1912. Prior to Dec. 13, 1923, nonrecording gage at site 1 mi (2 km) upstream at different datum.

REMARKS.--Records fair. Low flow slightly regulated by plants at Canton. Records include diversion from Sugar Creek well field. Mean pumpage for the 1976 water year, 16.3 ft³/s (0.46 m³/s). See REMARKS for station 03124500.

AVERAGE DISCHARGE.--56 years, 176 ft³/s (4.984 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,600 ft³/s (244 m³/s) Jan. 21, 1959, gage height, 11.29 ft (3.441 m), from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s (0.10 m³/s) Sept. 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 23	2200	2040	57.8	5.16	1.573	July 21	2200	2660	75.3	5.97	1.820
Mar. 17	1700	1900	53.8	4.95	1.509	Aug. 7	0400	2180	61.7	5.36	1.634
Apr. 3	0030	*3980	113	*7.53	2.295	Sept. 2	2300	2100	59.5	5.25	1.600
July 1	0030	1620	45.9	4.56	1.390	Sept. 19	0230	2860	81.0	6.22	1.896
July 4	1330	2240	63.4	5.44	1.658						

Minimum daily, 65 ft³/s (1.84 m³/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	170	97	78	65	210	219	191	107	492	91	101
2	117	147	100	83	66	198	1960	312	102	121	91	364
3	102	132	92	91	73	311	2240	289	98	84	91	594
4	109	122	91	98	78	335	861	290	92	814	91	184
5	110	118	86	97	75	227	1100	331	200	318	143	126
6	113	112	104	97	79	205	556	266	165	143	220	220
7	110	101	304	98	82	188	446	215	114	167	1360	161
8	107	105	158	89	84	189	418	180	104	558	425	121
9	166	109	128	87	101	172	318	171	429	170	342	108
10	126	122	118	93	168	163	283	167	128	101	190	99
11	112	114	121	89	185	266	268	163	90	112	156	84
12	111	110	113	89	277	1090	246	157	80	143	161	91
13	107	102	114	82	271	509	231	152	86	106	114	167
14	104	96	105	79	227	327	226	145	86	95	97	386
15	105	101	109	74	202	254	211	133	86	181	97	178
16	98	103	110	74	169	214	194	139	84	167	99	461
17	92	102	107	75	156	1290	183	143	93	465	247	445
18	93	103	99	75	162	796	189	186	148	229	112	250
19	100	103	94	75	155	496	196	151	97	130	95	1060
20	158	97	173	75	147	398	213	137	86	130	86	816
21	144	93	143	75	196	423	222	125	84	616	99	343
22	117	99	121	75	650	367	209	113	84	715	371	245
23	103	101	114	75	1600	308	387	120	88	145	128	207
24	229	98	98	75	1340	287	483	148	91	101	106	208
25	248	95	90	76	583	242	370	118	145	265	95	486
26	160	99	91	75	399	216	296	113	86	148	91	489
27	134	100	97	73	319	198	258	109	93	106	86	297
28	124	96	100	66	247	375	274	101	143	95	80	206
29	115	102	99	66	---	410	265	91	253	164	181	184
30	112	93	92	66	---	274	213	88	145	118	145	169
31	228	---	88	66	---	250	---	100	---	86	101	---
TOTAL	3975	3245	3556	2486	8156	11188	13535	5144	3687	7277	5791	8850
MEAN	128	108	115	80.2	291	361	451	166	123	235	187	295
MAX	248	170	304	98	1600	1290	2240	331	429	814	1360	1060
MIN	92	93	86	66	65	163	183	88	80	84	80	84

CAL YR 1976 TOTAL 88512 MEAN 242 MAX 2750 MIN 84
WTR YR 1977 TOTAL 76890 MEAN 211 MAX 2240 MIN 65

03118500 NIMISHILLEN CREEK AT NORTH INDUSTRY, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1969, 1975, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1230	285	960	7.6	7.0	10.7	88	2.7	320	170	94	21
JUN 27...	1340	115	1250	7.7	22.5	7.7	88	5.0	430	210	130	25

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	60	5.4	184	0	151	7.4	150	110	.5	9.9	542	2.7
JUN 27...	100	9.5	275	0	226	8.8	190	150	1.0	12	754	6.6

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.12	2.2	.60	2	20	10	50	16	690	.0	100	6.3
JUN 27...	.35	1.4	2.0	2	20	8	120	14	230	.2	40	15

03120500 McGUIRE CREEK BELOW LEESVILLE DAM, NEAR LEESVILLE, OH

LOCATION.--Lat 40°28'13", long 81°11'48", in E. 1/2 sec. 36, T.13 N., R.6 W., Carroll County, Hydrologic Unit 05040001, on left bank at outlet of Leesville Dam 1.3 mi (2.1 km) upstream from mouth, and 1.4 mi (2.3 km) northeast of Leesville.

DRAINAGE AREA.--48.3 mi² (125 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Published as McGuire Creek near Leesville 1938-39.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder and V-notch weir. Datum of gage is 915.00 ft (278.892 m) above mean sea level. Prior to May 27, 1942, nonrecording gage at site 100 ft (30 m) upstream at present datum.

REMARKS.--Records good. Flow regulated by Leesville Lake (see station 03120000).

AVERAGE DISCHARGE.--39 years, 52.0 ft³/s (1.473 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 740 ft³/s (21.0 m³/s) Mar. 4, 1940; maximum gage height, 7.88 ft (2.402 m) Mar. 4, 1940 (backwater from Conotton Creek); no flow several days during 1939-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 222 ft³/s (6.29 m³/s) Apr. 5, gage height, 4.19 ft (1.277 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	51	12	11	8.2	193	1.2	43	7.6	49	25	9.3
2	45	44	9.6	11	8.2	144	1.4	44	6.8	40	19	14
3	6.6	20	8.5	11	8.[illegible]	39	22	44	6.2	30	15	42
4	43	12	8.7	11	6[illegible]	3.2	121	46	5.7	32	12	33
5	144	20	8.7	12	5.7	3.3	207	53	7.[illegible]	45	20	22
6	144	18	8.7	12	8.3	3.2	193	63	16	53	40	15
7	144	14	42	14	9.3	2.0	186	108	15	48	75	12
8	144	14	50	14	9.6	1.5	191	115	12	46	79	11
9	144	6.8	45	14	9.6	1.4	196	163	33	39	77	9.9
10	141	7.1	48	8.0	9.6	1.5	191	171	35	32	69	9.3
11	141	9.3	47	7.8	9.6	1.5	189	94	25	25	60	8.7
12	141	9.3	29	8.5	9.6	1.5	139	69	18	34	55	8.0
13	62	9.3	25	8.5	11	62	74	63	15	33	46	7.8
14	11	9.3	18	8.5	40	163	65	58	14	24	43	11
15	10	9.3	13	12	71	156	60	50	12	17	51	11
16	9.6	9.3	13	13	75	93	54	41	11	14	48	16
17	9.6	9.3	20	9.9	65	53	49	34	11	13	54	22
18	7.3	5.5	23	8.5	21	56	46	31	144	13	50	20
19	3.3	5.8	16	8.5	9.6	27	42	29	182	11	42	65
20	2.2	8.5	28	8.5	20	33	37	23	182	9.9	34	80
21	2.2	9.6	42	8.5	33	24	34	19	193	29	28	75
22	2.1	8.0	31	8.2	37	1.8	32	16	193	88	28	67
23	2.1	7.3	15	8.2	78	1.4	37	14	159	72	21	58
24	12	7.3	11	8.2	178	1.4	46	13	111	60	18	48
25	39	7.3	12	8.2	203	1.4	44	12	100	51	14	48
26	48	7.3	23	8.2	200	1.4	40	10	89	40	13	35
27	41	7.3	29	11	189	1.4	37	9.6	74	28	12	31
28	17	9.0	29	12	189	1.4	38	9.0	65	18	11	21
29	9.9	12	16	12	---	1.4	48	8.7	62	15	10	17
30	13	12	11	4.7	---	1.4	47	8.2	50	14	9.9	15
31	37	---	11	2.5	---	1.3	---	8.0	---	14	9.6	---
TOTAL	1703.9	378.9	703.2	303.4	1521.9	1076.4	2467.6	1469.5	1864.9	1028.9	1088.5	834.8
MEAN	55.0	12.6	22.7	9.79	54.4	34.7	82.3	47.4	62.2	33.2	35.1	27.8
MAX	144	51	50	14	203	193	207	171	193	88	79	80
MIN	2.1	5.5	8.5	2.5	5.7	1.3	1.2	8.0	5.7	9.9	9.6	7.8

CAL YR 1976 TOTAL 16659.9 MEAN 45.5 MAX 187 MIN 1.8
WTR YR 1977 TOTAL 14441.1 MEAN 39.6 MAX 207 MIN 1.2

03120500 McGUIRE CREEK BELOW LEESVILLE DAM, NEAR LEESVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 22...	1330	1.5	190	7.3	7.5	10.9	91	1.2	73	32	21	4.9
JUL 12...	1415	35	158	7.3	15.0	9.4	92	1.9	67	16	20	4.2

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 22...	6.1	2.0	49	0	40	3.9	28	10	.1	5.5	102	.69
JUL 12...	4.5	2.1	62	0	51	5.0	21	8.2	.1	5.4	95	.07

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 22...	.01	.05	.03	0	20	3	10	5	80	.0	50	--
JUL 12...	.01	.69	.03	2	<10	0	340	12	1200	.0	60	6.4

03122500 TUSCARAWAS RIVER BELOW DOVER DAM, NEAR DOVER, OH

LOCATION.--Lat 40°31'47", long 81°25'48", in T.9 N., R.2 W., Tuscarawas County, Hydrologic Unit 05040001, on left bank at downstream side of bridge on State Highway 416, 2.2 mi (3.5 km) downstream from Dover Dam, 1.5 mi (2.4 km) east of Dover, and 3.4 mi (5.5 km) upstream from Sugar Creek.

DRAINAGE AREA.--1,405 mi² (3,639 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to current year. Published as Tuscarawas River near Dover 1923-39.

REVISED RECORDS.--WSP 803: 1933(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 861.51 ft (262.588 m) above mean sea level, adjustment of 1912. Prior to Aug. 30, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Diversion from basin at Portage Lakes (see REMARKS for stations 03116000 and 03117000). Records include diversion from Sugar Creek well field. Mean pumpage for the 1977 water year, 16.3 ft³/s (0.46 m³/s) (see REMARKS for station 03124500). Flow regulated by four flood-control reservoirs since 1936 at points 2.2 mi (3.5 km) to 25 mi (40 km) upstream (see stations 03119500, 03120000, 03121000, and 03122000).

AVERAGE DISCHARGE.--54 years, 1,392 ft³/s (39.42 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s (748 m³/s) Jan. 26, 1937, gage height, 15.51 ft (4.727 m); minimum daily, 6.5 ft³/s (0.18 m³/s) Oct. 26, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,240 ft³/s (177 m³/s) Feb. 25, gage height, 7.28 ft (2.219 m); minimum daily, 388 ft³/s (11.0 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	799	1400	736	520	390	3600	1730	1290	514	1420	680	502
2	722	1250	701	500	390	3100	2540	1140	526	1300	604	490
3	610	1010	743	490	390	2700	5370	1450	508	855	550	1220
4	532	659	834	480	390	2300	4830	1430	484	1120	502	946
5	544	795	785	470	390	3200	4850	1800	586	3350	484	598
6	645	757	722	460	400	2390	5650	2090	1040	1960	645	544
7	652	680	911	460	400	1680	5630	1910	1020	1230	1900	580
8	659	624	1290	450	400	1450	5470	1800	743	1260	2960	514
9	680	638	1170	440	440	1290	5770	1520	995	1250	2290	466
10	904	666	1010	430	500	1180	5690	1530	1420	939	1700	460
11	904	673	960	420	580	1100	5610	1280	988	778	1310	424
12	834	659	974	420	800	1050	5710	1100	736	897	1210	388
13	799	631	946	420	1170	3520	5440	1020	638	1030	1120	424
14	736	598	841	420	1010	5490	5120	967	610	820	953	1370
15	645	574	799	420	2120	4970	4660	897	574	694	918	1730
16	574	722	617	420	1800	4020	3400	827	550	736	1070	1190
17	532	757	592	420	1300	2810	1870	785	544	1160	1100	1820
18	514	645	592	420	1100	3200	1530	757	1410	1180	1200	1890
19	514	550	580	420	940	4490	1330	799	1760	995	981	2800
20	538	544	586	420	800	4550	1290	764	1550	792	806	3050
21	701	526	640	420	729	3970	1240	701	1030	1020	708	3310
22	680	526	870	410	729	4150	1170	624	876	3420	904	3180
23	617	526	780	410	1200	4880	1200	500	813	2940	1130	1490
24	659	508	680	410	3660	4910	1910	592	736	2430	827	1120
25	1110	617	600	400	5820	4380	2180	610	729	1840	673	1370
26	1170	781	580	400	6030	4110	1830	592	757	1540	598	1550
27	974	743	560	400	5970	3150	1630	556	645	1090	550	1250
28	848	771	540	390	5180	2100	1470	538	592	806	508	883
29	757	778	540	390	---	2820	1570	514	743	715	484	729
30	694	757	530	390	---	2700	1500	490	1130	722	604	645
31	848	---	520	390	---	2090	---	484	---	687	544	---
TOTAL	22395	21485	23229	13310	45828	97350	99190	31437	25247	40976	30513	36933
MEAN	722	716	749	429	1637	3140	3306	1014	842	1322	984	1231
MAX	1170	1400	1290	520	6030	5490	5770	2090	1760	3420	2960	3310
MIN	514	508	520	390	390	1050	1170	484	484	687	484	388

CAL YR 1976 TOTAL 563196 MEAN 1539 MAX 5600 MIN 394
WTR YR 1977 TOTAL 487893 MEAN 1337 MAX 6030 MIN 388

03122500 TUSCARAWAS RIVER BELOW DOVER DAM, NEAR DOVER, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	0900	4600	620	7.4	5.0	10.5	82	2.1	180	120	54	12
JUN 27...	1030	662	1200	7.8	22.0	8.5	96	2.9	340	230	110	16

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	38	3.7	78	0	64	5.0	77	87	.2	7.6	318	1.7
JUN 27...	100	4.4	137	0	112	3.5	120	240	.6	5.9	665	1.7

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.02	.26	.27	3	10	9	30	12	330	.0	70	--
JUN 27...	.09	.09	.22	2	20	7	150	15	660	.2	20	9.8

03124000 SUGAR CREEK BELOW BEACH CITY DAM, NEAR BEACH CITY, OH

LOCATION.--Lat 40°38'08", long 81°33'11", in T10 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on right bank 1,000 ft (305 m) downstream from Beach City Dam, 0.4 mi (0.6 km) downstream from South Fork, and 1.8 mi (2.9 km) southeast of Beach City.

DRAINAGE AREA.--300 mi^2 (777 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Published as Sugar Creek near Beach City prior to 1940.

REVISED RECORDS.--WSP 953: 1941.

GAGE.--Water-stage recorder. Datum of gage is 928.00 ft (282.854 m) above mean sea level, adjustment of 1912. Prior to Mar. 23, 1939, nonrecording gage at site 500 ft (152 m) downstream at datum 1 ft (0.3 m) higher. Mar. 23, 1939, to Sept. 26, 1949, water-stage recorder at site 300 ft (91 m) downstream at present datum.

REMARKS.--Records good. Flood flow regulated by Beach City Lake (see station 03123500).

AVERAGE DISCHARGE.--39 years, 264 ft^3/s (7.476 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,520 ft^3/s (213 m^3/s) July 6, 1969, gage height, 11.26 ft (3.432 m), from floodmark in well; no flow Oct. 7-30, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) Apr. 3, gage height, 6.38 ft (1.945 m); minimum daily, 32 ft^3/s (0.91 m^3/s) Dec. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	219	40	40	35	1660	258	185	38	58	119	41
2	46	173	37	37	35	990	432	166	38	60	100	44
3	42	120	35	38	35	392	1570	183	35	57	72	79
4	41	97	33	38	35	356	1530	181	34	57	58	83
5	38	83	32	37	35	581	1040	258	54	894	57	83
6	38	74	33	37	35	469	982	322	228	1180	142	83
7	38	68	56	37	35	341	982	283	223	424	322	82
8	40	64	122	37	35	274	1330	217	112	179	501	79
9	43	59	100	37	40	234	1620	169	101	120	581	77
10	63	57	73	36	56	215	1600	142	110	117	571	76
11	73	59	67	36	50	193	1380	127	110	116	336	74
12	57	57	72	36	48	183	540	115	107	113	138	57
13	48	53	70	36	80	790	341	105	107	95	95	42
14	42	50	59	36	361	1360	281	97	106	66	95	109
15	39	48	51	36	424	1130	243	90	83	50	95	314
16	37	48	50	36	307	610	209	82	56	43	213	279
17	36	47	52	36	225	405	190	75	47	98	225	363
18	34	46	51	36	173	534	179	72	75	112	120	374
19	34	49	47	36	144	1510	168	72	87	86	93	460
20	37	48	55	36	132	1340	156	72	85	61	87	629
21	54	46	86	36	126	913	149	67	79	61	67	457
22	70	44	79	36	115	694	141	62	49	438	75	276
23	57	43	66	36	281	732	156	58	38	925	91	193
24	57	39	54	36	757	610	279	56	34	954	90	155
25	129	41	47	36	1130	446	317	55	38	460	90	207
26	149	46	44	36	1590	363	291	52	63	199	87	307
27	109	54	47	36	1560	314	243	48	50	138	71	223
28	83	57	47	35	1560	312	199	45	38	112	49	149
29	68	54	49	35	---	460	263	42	41	83	42	112
30	61	44	48	35	---	418	232	39	56	193	52	97
31	87	---	42	35	---	322	---	38	---	169	48	---
TOTAL	1800	1987	1744	1126	9439	19151	17301	3575	2322	7718	4782	5604
MEAN	58.1	66.2	56.3	36.3	337	618	577	115	77.4	249	154	187
MAX	149	219	122	40	1590	1660	1620	322	228	1180	581	629
MIN	34	39	32	35	35	183	141	38	34	43	42	41

CAL YR 1976 TOTAL 86144 MEAN 235 MAX 1760 MIN 32
WTR YR 1977 TOTAL 76549 MEAN 210 MAX 1660 MIN 32

03124000 SUGAR CREEK BELOW BEACH CITY DAM, NEAR BEACH CITY, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1300	786	450	7.5	5.0	11.3	88	1.9	190	130	48	17
JUN 29...	1830	42	780	7.9	26.0	7.6	93	6.6	320	160	81	28

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	13	4.0	72	0	59	3.6	100	27	.1	7.5	253	4.6
JUN 29...	34	7.2	194	0	159	3.9	160	54	.2	5.0	466	.45

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.03	.19	.13	1	30	3	30	7	490	.0	50	--
JUN 29...	.07	.34	.28	4	10	5	20	8	1300	.0	30	11

03124500 SUGAR CREEK AT STRASBURG, OH

LOCATION.--Lat 40°35'15", long 81°31'24", in NW 1/4 sec. 1, T.9 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on left bank 150 ft (46 m) upstream from bridge on State Highway 21, 0.8 mi (1.3 km) upstream from Broad Run, and 0.1 mi (0.2 km) southeast of Strasburg.

DRAINAGE AREA.--311 mi^2 (805 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1931 to March 1933, January 1935 to July 1939, October 1961 to current year.

REVISED RECORDS.--WSP 1305: 1932-33(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 896.24 ft (273.174 m) above mean sea level, adjustment of 1912. July 29, 1931, to Mar. 31, 1933, and Dec. 10, 1934, to July 31, 1939, nonrecording gage, and Oct. 1, 1961, to May 26, 1964, water-stage recorder at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for period of no gage height record, which are fair. Flood flow regulated by Beach City Lake 5.0 mi (8.0 km) upstream, since August 1937 (see station 03123500). Part of municipal water supply for city of Canton, starting May 1962, is pumped from well field 4.3 mi (6.9 km) upstream; pumpage is returned to Nimishillen Creek. pumpage is returned to Nimishillen Creek. Mean pumpage for water year 1977, 16.3 ft^3/s (0.46 m^3/s).

AVERAGE DISCHARGE.--20 years (1931-32, 1935-38, 1961-77), 289 ft^3/s (8.184 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft^3/s (558 m^3/s) Aug. 7, 1935, gage height, 14.70 ft (4.48 m) (present datum), from rating curve extended above 8,400 ft^3/s (238 m^3/s); no flow all or part of each day Sept. 29 to Nov. 6, 1963, Sept. 20, Dec. 3, 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,050 ft^3/s (58.1 m^3/s) Apr. 3, gage height, 5.38 ft (1.640 m); minimum daily, 33 ft^3/s (0.93 m^3/s) Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	218	51	40	35	1700	262	197	40	76	137	53
2	50	193	49	39	35	900	462	178	40	66	119	52
3	47	142	51	38	35	440	1710	182	37	63	89	79
4	43	116	45	38	35	312	1710	186	36	92	72	85
5	41	101	40	38	34	544	1130	247	49	872	67	85
6	39	90	37	38	34	560	1040	315	204	1360	144	85
7	38	83	49	38	34	360	1030	284	218	473	289	85
8	38	78	117	38	34	292	1400	230	119	204	477	85
9	41	70	114	38	37	252	1750	184	106	139	592	85
10	53	71	86	38	47	230	1740	159	111	135	584	85
11	71	71	74	38	46	213	1520	146	111	135	360	83
12	59	70	78	37	48	199	564	133	111	132	167	71
13	48	67	75	37	67	759	344	126	111	116	111	54
14	41	61	65	37	320	1460	281	117	111	83	111	109
15	40	58	60	37	380	1240	247	109	92	66	107	289
16	38	57	58	37	290	633	218	101	65	59	193	292
17	36	57	56	37	230	399	199	95	55	98	240	357
18	35	57	56	37	190	544	186	89	79	130	144	373
19	33	57	54	36	160	1620	178	82	90	98	106	451
20	34	57	60	36	140	1500	167	79	90	70	103	659
21	43	57	90	36	130	893	157	72	86	90	83	492
22	60	55	84	36	120	722	152	66	60	419	83	297
23	53	54	78	36	290	677	154	62	48	989	98	216
24	51	52	58	36	800	596	257	59	43	1030	99	175
25	111	49	55	36	1100	335	297	57	44	527	99	197
26	146	51	53	36	1600	360	286	54	65	233	98	309
27	114	58	50	36	1500	320	250	51	61	157	88	242
28	85	62	48	35	1500	312	208	47	47	135	62	169
29	68	63	46	35	---	448	247	46	44	101	54	133
30	61	57	44	35	---	423	237	43	59	182	59	116
31	75	---	42	35	---	320	---	40	---	193	60	---
TOTAL	1746	2332	1923	1144	9271	19563	18383	3836	2432	8523	5095	5863
MEAN	56.3	77.7	62.0	36.9	331	631	613	124	81.1	275	164	195
MAX	146	218	117	40	1600	1700	1750	315	218	1360	592	659
MIN	33	49	37	35	34	199	152	40	36	59	54	52

CAL YR 1976 TOTAL 87301 MEAN 239 MAX 1730 MIN 33
WTR YR 1977 TOTAL 80111 MEAN 219 MAX 1750 MIN 33

Note: No gage height record Dec. 16 to Mar. 5.

03124500 SUGAR CREEK AT STRASBURG, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA+MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1100	788	475	7.5	5.5	11.4	90	1.5	190	130	48	17
JUN 29...	1730	45	780	7.9	26.0	8.7	110	4.6	330	180	81	30

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	13	3.8	70	0	57	3.5	110	26	.1	7.6	261	4.2
JUN 29...	33	6.6	178	0	146	3.6	190	52	.2	5.6	486	.74

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.03	.16	.10	1	30	4	30	5	550	.0	60	--
JUN 29...	.01	.05	.14	3	<10	3	20	10	160	.0	50	7.2

03125000 HOME CREEK NEAR NEW PHILADELPHIA, OH

LOCATION.--Lat 40°28'06", long 81°24'10", Tuscarawas County, Hydrologic Unit 05040001, on right bank 100 ft (30 m) downstream from highway bridge, 0.5 mi (0.8 km) upstream from the mouth, and 1.5 mi (2.4 km) southeast of New Philadelphia.

DRAINAGE AREA.--1.64 mi^2 (4.25 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1936 to current year.

REVISED RECORDS.--WSP 1173: 1941(M). WSP 1385: 1951-53(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 872.49 ft (265.935 m) above mean sea level, adjustment of 1912.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--40 years, 1.26 ft^3/s (0.036 m^3/s) 10.43 in/yr (265 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 378 ft^3/s (10.7 m^3/s) July 7, 1969, gage height, 5.77 ft (1.759 m); no flow at times in 1938-40, 1942-68, 1970-75.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s (1.42 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 17	2315	*136	3.85	*3.62	1.103	July 21	2115	79	2.18	2.86	0.872

Minimum daily discharge, 0.02 ft^3/s (0.001 m^3/s) Jan. 9 to Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.73	.08	.03	.02	.13	.88	.44	.07	.64	.34	.09
2	.08	.46	.08	.03	.02	.11	18	.80	.05	.18	.12	.33
3	.07	.38	.07	.03	.02	.10	7.1	.64	.05	.11	.09	.35
4	.06	.31	.07	.03	.02	3.2	10	1.4	.04	2.5	.07	.12
5	.06	.27	.07	.03	.02	1.9	8.6	1.2	4.2	.67	.31	.12
6	.11	.24	.27	.03	.02	1.4	4.3	4.1	3.1	.31	.88	.09
7	.12	.22	2.2	.03	.02	1.1	2.9	2.6	.46	.34	1.4	.07
8	.09	.21	.64	.03	.02	.88	2.1	1.5	.84	.26	.51	.06
9	.84	.19	.34	.02	.02	.80	1.7	1.0	3.0	.16	.31	.11
10	.31	.22	.28	.02	.03	.77	1.6	.80	.64	.12	.21	.14
11	.15	.18	.24	.02	.30	.67	1.3	.61	.40	1.1	.93	.04
12	.12	.15	.21	.02	1.2	3.8	1.0	.53	.32	.64	1.6	.07
13	.14	.13	.17	.02	1.8	8.6	1.0	.48	.26	.26	.39	.73
14	.14	.11	.16	.02	1.4	3.1	.88	.44	.22	.14	1.2	2.1
15	.14	.10	.14	.02	1.1	2.1	.73	.36	.16	.10	1.8	.30
16	.11	.10	.12	.02	.90	1.5	.64	.32	.14	.08	.72	1.2
17	.10	.09	.11	.02	.78	1.3	.61	.29	6.8	.38	2.8	.64
18	.09	.16	.10	.02	.68	8.8	.59	.29	10	.19	.72	.49
19	.11	.16	.09	.02	.64	3.4	.53	.27	1.1	.09	.43	6.1
20	.48	.14	.09	.02	.60	3.4	.48	.21	.59	.07	.33	1.8
21	.27	.12	.08	.02	.56	2.3	.44	.18	.36	14	.51	.77
22	.15	.11	.07	.02	.52	3.2	.44	.16	.27	3.8	.54	.51
23	.10	.09	.07	.02	1.1	2.1	.92	.32	.22	.88	.29	.39
24	1.5	.08	.06	.02	8.0	1.7	.61	.24	.21	.51	.27	.34
25	1.1	.14	.05	.02	12	1.4	.84	.15	.73	.48	.22	.30
26	.40	.23	.05	.02	5.0	1.2	.51	.11	.24	.29	.18	.82
27	.27	.25	.05	.02	1.5	1.0	.42	.09	.18	.19	.16	.35
28	.21	.18	.04	.02	.16	2.2	1.6	.08	.29	.15	.12	.26
29	.19	.14	.04	.02	---	1.6	.88	.07	.24	.26	.09	.23
30	.42	.09	.04	.02	---	1.3	.56	.07	.32	.21	.10	.21
31	2.5	---	.04	.02	---	1.0	---	.10	---	.36	.10	---
TOTAL	10.53	5.98	6.12	.70	38.45	66.06	72.16	19.85	35.50	29.47	17.74	19.13
MEAN	.34	.20	.20	.023	1.37	2.13	2.41	.64	1.18	.95	.57	.64
MAX	2.5	.73	2.2	.03	12	8.8	18	4.1	10	14	2.8	6.1
MIN	.06	.08	.04	.02	.02	.10	.42	.07	.04	.07	.07	.04
CFSM	.21	.12	.12	.01	.84	1.30	1.47	.39	.72	.58	.35	.39
IN.	.24	.14	.14	.02	.87	1.50	1.64	.45	.80	.67	.40	.43

CAL YR 1976 TOTAL 418.32 MEAN 1.14 MAX 36 MIN .04 CFSM .70 IN 9.49
WTR YR 1977 TOTAL 321.69 MEAN .88 MAX 18 MIN .02 CFSM .54 IN 7.29

031250000 HOME CREEK NEAR NEW PHILADELPHIA, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 21...	1515	2.2	525	7.2	13.5	9.5	90	.9	220	180	52	21
JUN 29...	1500	.18	630	7.6	23.5	8.3	96	2.1	350	270	92	30

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 21...	12	2.7	40	0	33	4.0	170	17	.1	12	307	2.3
JUN 29...	30	9.8	105	0	86	4.2	290	40	.3	13	558	1.0

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 21...	.01	.17	.06	1	10	3	50	4	500	.0	30	--
JUN 29...	.10	.20	.21	3	<10	4	250	5	420	.0	50	10

03126000 STILLWATER CREEK AT PIEDMONT, OH

LOCATION.--Lat 40°11'41", long 81°12'56", in sec. 35, T.10 N., R.6 W., Harrison County, Hydrologic Unit 05040001, on left bank 400 ft (122 m) downstream from outlet of Piedmont Dam and Boggs Fork, and 0.7 mi (1.1 km) northwest of Piedmont.

DRAINAGE AREA.--122 mi^2 (316 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to February 1939 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 872.00 ft (265.785 m) above mean sea level, adjustment of 1912. Prior to Sept. 9, 1949, at site 1,000 ft (305 m) downstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated by Piedmont Lake (see station 03125500).

AVERAGE DISCHARGE.--39 years, 132 ft^3/s (3.738 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,470 ft^3/s (41.6 m^3/s) Dec. 4, 1950; maximum gage height, 11.44 ft (3.487 m) Mar. 5, 1963; minimum daily discharge, 0.2 ft^3/s (0.006 m^3/s) Sept. 3, 4, 10, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 732 ft^3/s (20.7 m^3/s) Apr. 3, gage height, 7.91 ft (2.411 m); minimum daily, 9.0 ft^3/s (0.25 m^3/s) Feb. 2, 3, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	101	152	29	9.4	45	49	121	34	60	24	28
2	26	87	152	29	9.0	38	236	118	23	51	26	26
3	23	80	150	19	9.0	35	698	120	19	41	23	30
4	21	75	149	14	9.4	56	455	133	17	42	20	29
5	20	70	148	14	9.8	65	369	179	22	50	17	25
6	19	65	148	14	9.8	51	262	172	34	46	13	18
7	17	59	209	23	9.8	41	254	170	30	41	27	15
8	18	56	154	28	9.4	37	335	153	28	39	50	14
9	34	57	164	28	9.0	34	330	180	61	53	65	13
10	55	53	158	28	9.4	31	320	235	59	60	70	11
11	47	51	161	28	12	29	364	155	49	48	66	10
12	41	49	160	27	21	33	385	112	44	57	64	9.8
13	38	48	155	26	49	155	372	108	41	55	62	9.8
14	35	45	104	26	51	162	368	109	39	45	64	11
15	32	125	38	27	42	200	367	100	38	40	95	18
16	29	164	36	28	34	170	350	93	36	37	90	48
17	28	161	92	17	26	135	342	86	34	35	80	60
18	25	160	121	11	22	239	333	82	33	36	73	51
19	24	160	120	11	20	243	324	87	30	34	67	53
20	27	158	127	11	19	210	180	84	22	29	61	71
21	40	157	127	11	18	233	99	77	15	26	54	62
22	35	156	122	11	22	312	96	70	12	50	49	52
23	30	156	120	10	52	351	99	65	11	57	47	48
24	52	155	119	10	160	349	123	63	15	33	45	47
25	89	156	118	11	170	295	114	64	22	28	42	47
26	80	156	118	11	121	135	106	60	40	27	39	48
27	69	156	118	11	73	132	105	56	32	23	36	47
28	63	155	118	11	54	148	112	51	31	17	35	43
29	59	157	117	11	---	159	169	48	39	16	32	40
30	59	153	82	9.8	---	144	150	45	34	23	32	39
31	100	---	31	9.4	---	84	---	43	---	21	31	---
TOTAL	1261	3381	3888	554.2	1060.0	4351	7866	3239	944	1220	1499	1023.6
MEAN	40.7	113	125	17.9	37.9	140	262	104	31.5	39.4	48.4	34.1
MAX	100	164	209	29	170	351	698	235	61	60	95	71
MIN	17	45	31	9.4	9.0	29	49	43	11	16	13	9.8

CAL YR 1976 TOTAL 46292.8 MEAN 126 MAX 938 MIN 9.8
WTR YR 1977 TOTAL 30286.8 MEAN 83.0 MAX 698 MIN 9.0

03126000 STILLWATER CREEK AT PIEDMONT, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1400	392	1000	7.9	7.5	11.2	93	1.4	560	450	140	50
JUN 30...	1415	37	1100	7.6	18.0	8.5	89	1.7	550	440	135	51

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	19	3.1	132	0	108	2.7	470	13	.1	4.5	765	.24
JUN 30...	16	3.1	136	0	112	5.5	450	11	.2	4.0	739	.02

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.01	.03	.04	1	10	0	30	3	130	.0	70	--
JUN 30...	.00	.07	.03	--	10	7	190	7	1900	--	20	4.9

03127000 STILLWATER CREEK AT TIPPECANOE, OH

LOCATION.--Lat 40°16'13", long 81°17'26", in NW 1/4 sec. 22, T.12 N., R.7 W., Harrison County, Hydrologic Unit 05040001, on left bank at downstream side of highway bridge at Tippecanoe, 0.4 mi (0.6 km) downstream from Brushy Fork, 3.6 mi (5.8 km) upstream from Weaver Run, 6 mi (10 km) upstream from Laurel Creek, and 9 mi (14 km) south of Dennison.

DRAINAGE AREA.--282 mi² (730 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 849.00 ft (258.775 m) above mean sea level, adjustment of 1912. Prior to Feb. 9, 1939, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter periods, which are poor. Flow regulated by Clendening Lake on Brushy Fork, 1.9 mi (3.1 km) upstream, and Piedmont Lake, 16 mi (26 km) upstream (see stations 03126500 and 03125500).

AVERAGE DISCHARGE.--39 years, 307 ft³/s (8.694 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,410 ft³/s (125 m³/s) Mar. 7, 1945, Mar. 5, 1963; maximum gage height, 17.29 ft (5.270 m) Mar. 5, 1963; minimum daily discharge, 1.1 ft³/s (0.031 m³/s) Oct. 4, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s (71.4 m³/s) Apr. 4, gage height, 14.75 ft (4.496 m); minimum daily, 21 ft³/s (0.59 m³/s) Sept. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	268	278	72	32	222	179	288	66	120	59	40
2	65	206	282	62	32	175	504	255	54	134	57	39
3	65	178	288	52	32	146	1920	257	53	96	49	42
4	62	154	287	46	31	189	2420	272	55	81	40	43
5	61	141	286	42	31	291	2090	457	55	95	35	42
6	60	131	285	40	31	231	1480	446	72	96	32	35
7	61	120	434	39	31	184	904	431	74	81	42	29
8	60	111	536	38	31	158	781	368	70	72	69	26
9	72	107	432	37	31	143	924	324	103	70	116	25
10	134	97	417	37	31	134	903	398	123	96	121	24
11	137	94	410	36	33	125	924	343	98	90	124	22
12	114	89	412	35	41	122	1000	236	84	105	105	21
13	104	84	415	34	50	585	982	221	75	119	97	21
14	97	81	389	36	94	709	899	210	70	101	93	22
15	92	103	264	39	170	704	598	193	68	80	146	23
16	86	192	241	35	160	756	458	174	66	65	161	40
17	83	193	261	34	130	736	437	154	62	59	134	90
18	81	193	335	34	110	777	428	143	61	72	114	87
19	81	195	334	34	98	949	415	147	59	64	99	94
20	81	195	345	34	90	785	349	150	54	55	86	123
21	107	194	298	34	80	729	187	135	44	49	73	125
22	121	193	221	34	74	912	176	119	37	86	66	98
23	105	192	201	34	140	996	183	109	34	113	60	84
24	124	268	200	34	700	778	220	103	34	91	58	78
25	206	329	201	33	1240	511	235	98	38	71	54	77
26	209	329	190	33	996	292	207	93	60	81	49	75
27	162	332	170	33	462	237	206	85	66	72	46	72
28	138	303	140	33	272	270	205	80	66	59	44	66
29	126	282	120	33	---	360	427	76	95	54	42	58
30	121	277	100	32	---	311	385	72	89	61	42	108
31	198	---	85	32	---	271	---	70	---	61	41	---
TOTAL	3276	5623	8849	1181	5253	13788	21018	6507	1985	2549	2354	1729
MEAN	106	187	285	38.1	188	445	701	210	66.2	82.2	75.9	57.6
MAX	209	332	536	72	1240	996	2420	457	123	134	161	125
MIN	60	81	85	32	31	122	176	70	34	49	32	21

CAL YR 1976 TOTAL 96263 MEAN 263 MAX 1680 MIN 20
WTR YR 1977 TOTAL 74112 MEAN 203 MAX 2420 MIN 21

03127000 STILLWATER CREEK AT TIPPECANOE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1100	1000	800	7.7	6.0	11.0	88	1.3	390	310	96	37
JUN 30...	1215	88	940	7.6	19.5	8.0	86	1.8	410	320	110	34

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	13	2.7	105	0	86	3.4	320	11	.1	5.4	537	.35
JUN 30...	17	2.9	121	0	99	4.9	340	12	.1	5.8	583	.36

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.01	.07	.02	1	20	10	20	4	110	.0	50	--
JUN 30...	.01	.13	.07	2	10	6	620	5	890	.0	20	5.7

03127500 STILLWATER CREEK AT UHRICHSVILLE, OH

LOCATION.--Lat 40°23'10", long 81°20'50", Tuscarawas County, Hydrologic Unit 05040001, on left bank at concrete dam of Dennison Water Supply Co. at Uhrichsville, 2.2 mi (3.5 km) upstream from Little Stillwater Creek.

DRAINAGE AREA.--367 mi² (951 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1922 to current year.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1113: 1923-24, 1926-31, 1932(M), 1933-35.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 839.37 ft (255.840 m) above mean sea level, adjustment of 1912. Prior to Oct. 1, 1936, nonrecording gage at site 1.7 mi (2.7 km) upstream at same datum. Auxiliary water-stage recorder below concrete dam at datum 10.00 ft (3.048 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Piedmont Lake, 35 mi (56 km) upstream, and Clendening Lake on Brushy Fork, 22 mi (35 km) upstream, beginning in 1938 (see stations 03125500 and 03126500). Water is diverted from Dennison water supply dam 1.7 mi (2.7 km) upstream from station for municipal supply of cities of Dennison and Uhrichsville; diversion not included in figures of daily discharge.

AVERAGE DISCHARGE.--55 years, 423 ft³/s (11.98 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,650 ft³/s (217 m³/s) Aug. 8, 9, 1935, gage height, 14.2 ft (4.33 m) at former site, 12.8 ft (3.90 m) at present site; no flow at times in 1930, 1932, 1936, 1939-40, 1953, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 17.5 ft (5.33 m) at former site, and about 15.5 ft (4.72 m) at present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft³/s (82.4 m³/s) Apr. 5; maximum gage height, 4.87 ft (1.484 m) Apr. 6 (backwater from Tuscarawas River); minimum daily discharge, 12 ft³/s (0.340 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	500	445	95	42	484	392	525	60	111	80	44
2	91	461	437	82	42	377	542	430	52	182	72	39
3	91	346	461	70	41	275	1800	415	41	159	68	42
4	91	275	461	58	41	288	2200	415	34	130	58	42
5	87	238	461	52	40	550	2900	656	37	117	47	40
6	87	216	461	48	40	525	2500	852	52	124	42	37
7	87	189	550	47	39	400	2000	916	58	116	46	30
8	87	168	742	46	39	317	1300	663	55	97	93	23
9	95	153	651	46	39	256	1170	534	74	85	153	21
10	138	143	565	46	39	233	1180	504	139	91	179	20
11	210	129	550	46	40	210	1150	524	139	125	186	18
12	189	120	558	46	56	199	1180	410	106	121	175	15
13	143	111	550	46	130	871	1180	322	86	142	151	12
14	120	103	533	56	350	1000	1140	291	76	150	149	23
15	107	103	469	66	445	1090	979	270	71	123	266	30
16	99	173	346	56	369	1020	676	237	65	94	264	31
17	95	208	324	52	270	1020	604	206	62	78	252	88
18	91	295	392	50	230	1160	604	179	67	80	199	137
19	83	295	445	49	190	1300	588	169	61	91	152	275
20	83	295	453	48	170	1100	573	168	56	73	123	606
21	91	295	476	47	150	1000	400	160	48	61	106	371
22	138	288	362	46	150	1130	268	139	37	81	91	202
23	153	288	268	45	280	1240	262	123	28	135	79	148
24	143	303	210	45	900	1220	295	115	25	144	64	109
25	262	476	262	45	1700	910	346	107	25	128	61	98
26	400	509	282	44	1500	668	339	97	31	108	57	92
27	331	509	240	44	1100	445	310	88	58	101	54	93
28	238	509	200	44	668	422	303	79	67	85	51	76
29	194	469	170	43	---	581	492	73	89	70	49	66
30	173	453	140	43	---	588	628	71	119	66	53	61
31	244	---	110	43	---	500	---	65	---	76	50	---
TOTAL	4532	8700	12574	1596	9100	21379	28301	9803	1918	3344	3470	2871
MEAN	146	290	406	51.5	325	690	943	316	63.9	108	112	95.7
MAX	400	509	742	95	1700	1300	2900	916	139	182	266	606
MIN	83	103	110	43	39	199	262	65	25	61	42	12
(+)	1.75	1.72	1.71	2.25	2.78	2.37	1.89	1.76	1.82	1.78	1.88	1.73

CAL YR 1976 TOTAL 131686 MEAN 360 MAX 2200 MIN [illegible] (+) 1.75
WTR YR 1977 TOTAL 107588 MEAN 295 MAX 2900 MIN 12 (+) 1.95

+ Diversion, in cubic feet per second, for minicipal supply of cities of Dennison and Uhrichsville, furnished by Dennison Water Supply Company.

03127500 STILLWATER CREEK AT UHRICHSVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
21...	1300	1020	560	7.3	7.0	10.2	84	1.9	250	190	63	22
JUN												
30...	0910	128	1650	7.7	22.5	7.7	88	3.2	540	420	140	46

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
21...	13	2.7	67	0	55	5.4	190	16	.1	6.7	347	.47
JUN												
30...	140	10	144	0	118	4.6	410	220	.4	3.2	1040	.28

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
21...	.01	.10	.06	1	10	15	30	9	120	.0	40	--
JUN												
30...	.06	1.4	.05	2	20	10	1000	4	930	.3	20	8.2

03128500 LITTLE STILLWATER CREEK BELOW TAPPAN DAM, AT TAPPAN, OH

LOCATION.--Lat 40°21'25", long 81°13'49", in NW 1/4 sec. 4, T.13 N., R.7 W., Harrison County, Hydrologic Unit 05040001, on right bank 150 ft (46 m) downstream from outlet of lake at Tappan Dam, 1 mi (2 km) west of Tappan, and 2 mi (3 km) upstream from Plum Run.

DRAINAGE AREA.--71.1 mi^2 (184 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Published as Little Stillwater Creek at Tappan 1938-39.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 861.00 ft (262.433 m) above mean sea level, adjustment of 1912. Prior to Jan. 30, 1939, water-stage recorder at gate house of Tappan Dam at datum 9 ft (3 m) higher. Jan. 30 to Mar. 24, 1939, nonrecording gage and Mar. 25, 1939, to Aug. 6, 1944, water-stage recorder, at site 150 ft (46 m) downstream at present datum.

REMARKS.--Records good except those below 6.0 ft^3/s (0.17 m^3/s), which are fair. Flow completely regulated by Tappan Lake (see station 03128000).

AVERAGE DISCHARGE.--39 years, 74.3 ft^3/s (2.104 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s (29.7 m^3/s) Mar. 13, 1939, gage height, 10.00 ft (3.048 m); no flow Sept. 12-15, 18, 19, 21-29, Oct. 13-21, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 594 ft^3/s (16.8 m^3/s) Nov. 16, gage height, 6.69 ft (2.039 m); minimum daily, 1.7 ft^3/s (0.048 m^3/s) Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	4.4	198	2.9	12	2.4	6.2	46	10	40	62	20
2	5.7	4.4	198	2.9	12	2.4	22	48	9.1	38	57	24
3	5.2	4.6	196	2.9	12	2.5	103	49	8.1	31	51	38
4	5.3	4.8	196	2.9	12	2.6	110	54	7.4	32	45	32
5	5.2	5.0	195	2.9	12	2.6	108	66	8.3	33	37	28
6	4.9	5.0	198	2.9	12	2.6	105	75	17	25	32	23
7	4.6	5.0	158	2.9	12	2.5	105	89	23	26	34	19
8	4.8	4.9	178	2.8	11	2.6	191	90	24	29	43	17
9	17	5.4	178	3.0	10	2.6	263	271	40	31	58	16
10	27	5.3	176	2.9	9.8	2.6	261	369	44	25	57	15
11	28	5.5	176	2.9	10	2.5	332	102	40	26	54	14
12	29	5.5	176	2.9	12	2.4	451	9.6	39	34	50	13
13	29	5.5	176	28	13	2.4	448	11	37	32	45	12
14	29	5.6	120	59	13	2.4	437	12	34	23	49	17
15	28	299	13	59	13	2.4	305	13	28	20	81	19
16	26	393	2.5	59	6.6	2.3	66	13	22	19	89	36
17	26	182	2.7	59	3.0	2.2	35	14	19	18	90	60
18	26	168	2.9	59	2.8	5.1	37	15	52	18	89	59
19	17	167	2.9	59	2.6	38	40	21	57	17	86	78
20	2.0	166	3.0	59	2.4	71	38	20	53	15	83	166
21	2.5	166	3.0	59	2.5	269	39	18	47	23	80	196
22	25	166	3.0	58	2.4	441	38	17	42	76	76	178
23	59	183	2.9	58	2.3	470	41	16	36	81	62	150
24	60	197	2.9	58	2.3	480	42	15	30	77	37	137
25	60	200	2.9	24	2.4	354	42	14	26	78	24	133
26	15	200	2.9	13	2.3	94	41	13	21	81	20	48
27	1.7	202	2.9	13	2.3	59	39	12	17	77	18	8.5
28	2.3	200	2.9	12	2.4	30	40	12	18	72	16	8.6
29	2.6	200	2.9	13	---	13	49	11	37	70	17	8.7
30	2.9	200	2.9	13	---	13	48	11	32	68	24	8.9
31	3.9	---	2.9	13	---	14	---	11	---	65	23	---
TOTAL	561.0	3359.9	2578.1	809.8	212.1	2393.1	3882.2	1537.6	877.9	1300	1591	1582.7
MEAN	18.1	112	83.2	26.1	7.58	77.2	129	49.6	29.3	41.9	51.3	52.8
MAX	60	393	198	59	13	480	451	369	57	81	90	196
MIN	1.7	4.4	2.5	2.8	2.3	2.2	6.2	9.6	7.4	15	16	8.5

CAL YR 1976 TOTAL 23487.04 MEAN 64.2 MAX 456 MIN .84
WTR YR 1977 TOTAL 20685.40 MEAN 56.7 MAX 480 MIN 1.7

03128500 LITTLE STILLWATER CREEK BELOW TAPPAN DAM, AT TAPPAN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
22...	1000	473	690	7.8	7.0	11.2	92	1.6	330	240	82	30
JUN												
30...	1030	33	690	7.6	16.5	8.6	88	2.1	310	220	83	26

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
22...	9.0	2.5	104	0	85	2.6	250	10	.1	4.8	440	.29
JUN												
30...	7.9	2.4	116	0	95	4.7	220	9.3	.1	4.3	412	.04

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
22...	.00	.15	.03	1	20	2	10	6	60	.0	50	--
JUN												
30...	.00	.14	.09	4	<10	8	300	2	1600	.0	20	6.2

03129000 TUSCARAWAS RIVER AT NEWCOMERSTOWN, OH

LOCATION.--Lat 40°15'41", long 81°36'33", in T.5 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on right bank 150 ft (46 m) upstream from highway bridge, 0.2 mi (0.3 km) south of Newcomerstown, 2 mi (3 km) upstream from Buckhorn Creek, and 4 mi (6 km) downstream from Dunlap Creek.

DRAINAGE AREA.--2,443 mi² (6,327 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 728: 1929(M). WSP 873: 1935. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft (237.744 m) above mean sea level, adjustment of 1912. Prior to Sept. 28, 1925, and July 18, 1935, to Feb. 13, 1939, nonrecording gage, Sept. 28, 1925, to July 17, 1935, water-stage recorder at site 1.5 mi (2.4 km) upstream at datum 5.03 ft (1.533 m) higher prior to Oct. 1, 1934, and 0.03 ft (0.009 m) higher Oct. 1, 1934, to Feb. 13, 1939.

REMARKS.--Records good except those for winter periods, which are fair. Diversion from basin at Portage 03117000). Flow regulated by eight flood-control reservoirs at points 40 mi (64 km) to 64 mi (103 km) upstream.

AVERAGE DISCHARGE.--56 years, 2,455 ft³/s (69.53 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,800 ft³/s (1,330 m³/s) Jan. 26, 1937, gage height, 20.65 ft (6.294 m), site and datum then in use; minimum daily, 170 ft³/s (4.81 m³/s) Aug. 6, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 21.5 ft (6.55 m), at site and datum used prior to Oct. 1, 1934, discharge, 83,000 ft³/s (2,350 m³/s) computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft³/s (329 m³/s) Apr. 5, gage height, 8.70 ft (2.652 m), maximum 9.78 ft (2.981 m) Feb. 28 (ice jam); minimum daily, 617 ft³/s (17.5 m³/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	1280	1320	900	680	6200	3010	2520	739	1590	1330	890
2	980	1780	1290	880	680	5400	3580	2230	730	1920	1200	833
3	887	1670	1270	860	680	4800	9570	2220	739	1490	1080	890
4	779	1410	1190	860	680	4300	10500	2470	694	1180	968	1750
5	698	1230	1290	840	680	4840	11200	2700	694	3170	881	1160
6	698	1120	1280	820	680	4530	11000	3460	1350	4160	978	939
7	770	1050	1360	800	680	3290	10300	4220	1580	2840	1580	919
8	779	961	1780	800	680	2700	9260	3570	1390	1860	3580	890
9	779	887	2090	780	680	2370	9130	2970	1250	1890	3610	804
10	887	887	1900	780	680	2180	9440	2810	1760	1560	3160	758
11	1080	897	1720	780	730	2040	9240	2770	1810	1310	2570	721
12	1140	878	1680	780	1200	1940	8870	2230	1380	1290	2190	676
13	1050	851	1680	760	1800	4250	8120	1880	1140	1480	1850	640
14	970	815	1620	820	2900	7920	7530	1740	1040	1350	1680	1340
15	878	779	1480	880	4000	8220	7210	1640	978	1140	1870	2190
16	788	906	1270	840	3800	6750	5870	1520	900	998	1960	2130
17	716	1260	1050	800	3200	5310	4050	1420	823	1150	2040	2170
18	653	1230	990	760	2700	4880	2980	1330	1880	1530	2130	2810
19	626	1090	1040	740	2300	7760	2700	1310	2490	1520	1880	3090
20	617	1030	1060	720	2000	8490	2520	1320	2210	1210	1560	5100
21	653	1010	1160	700	1700	7470	2350	1270	1740	1030	1370	4880
22	752	990	1280	700	1600	6990	2130	1180	1330	3900	1290	4380
23	788	970	1150	700	2100	7310	2020	1100	1160	4250	1440	3270
24	833	980	1060	680	4800	7890	2340	1140	1070	4060	1550	2160
25	990	1000	1000	680	7800	6990	3120	1060	988	3460	1310	1880
26	1380	1200	1000	680	9540	6190	2980	1020	1080	2640	1130	2380
27	1480	1300	980	680	9500	4970	2630	958	978	1990	1030	2220
28	1270	1350	960	680	8280	3680	2430	900	919	1570	958	1760
29	1080	1380	940	680	---	3760	2540	852	929	1330	900	1450
30	952	1370	940	680	---	4340	2800	795	1220	1270	881	1290
31	970	---	920	680	---	3620	---	758	---	1340	919	---
TOTAL	27993	33561	39750	23740	76750	161380	171420	57363	36991	61478	50875	56370
MEAN	903	1119	1282	766	2741	5206	5714	1850	1233	1983	1641	1879
MAX	1480	1780	2090	900	9540	8490	11200	4220	2490	4250	3610	5100
MIN	617	779	920	680	680	1940	2020	758	694	998	881	640

CAL YR 1976 TOTAL 901517 MEAN 2463 MAX 9870 MIN 545
WTR YR 1977 TOTAL 797671 MEAN 2185 MAX 11200 MIN 617

03129000 TUSCARAWAS RIVER AT NEWCOMERSTOWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946 to 1949, 1955 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
22...	1515	7250	515	7.4	6.0	10.3	82	2.0	200	140	55	15
JUN												
29...	1440	926	1200	8.5	24.5	11.1	130	4.7	360	250	110	20

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
22...	37	3.8	76	0	62	4.8	110	67	.1	7.5	333	2.1
JUN												
29...	90	4.8	125	5	111	.7	190	180	.4	3.5	667	.98

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
22...	.03	.14	.28	3	10	7	40	12	280	.0	150	--
JUN												
29...	.02	.10	.16	2	<10	10	1600	10	370	.5	40	1.9

03130000 BLACK FORK BELOW CHARLES MILL DAM, NEAR MIFFLIN, OH

LOCATION.--Lat 40°44'16", long 82°21'48", in NE 1/4 sec. 35, T.23 N., R.17 W., Ashland County, Hydrologic Unit 05040002, on left bank 700 ft (213 m) downstream from Charles Mill Dam, 2.5 mi (4.0 km) south of Mifflin, and 4 mi (6 km) upstream from Rocky Fork.

DRAINAGE AREA.--217 mi² (562 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1940, published as Black Fork near Mifflin. Monthly discharge only for October 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 981.56 ft (299.179 m) above mean sea level, adjustment of 1912. Dec. 3, 1941, to Dec. 5, 1944, water-stage recorder at site 300 ft (91 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Charles Mill Lake (see station 03129500).

AVERAGE DISCHARGE.--39 years, 194 ft³/s (5.494 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s (79.3 m³/s) Mar. 13, 1964 from rating curve extended above 1,900 ft³/s (53.8 m³/s); maximum gage height, 8.45 ft (2.576 m) Mar. 14, 1939; minimum daily discharge, 0.9 ft³/s (0.025 m³/s) Apr. 21, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a discharge of 11,700 ft³/s (331 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Apr. 6, gage height, 5.29 ft (1.612 m); minimum daily, 14 ft³/s (0.40 m³/s) Jan. 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	61	148	16	24	901	473	107	23	45	64	30
2	49	63	143	16	19	874	275	105	22	51	58	31
3	45	66	141	16	16	717	30	63	21	61	54	40
4	41	63	137	17	16	547	568	46	19	64	48	38
5	37	61	130	16	17	488	446	92	20	72	49	40
6	36	57	128	16	17	480	990	214	23	81	51	40
7	36	58	128	21	16	469	1090	278	24	93	70	37
8	32	54	123	23	21	420	1070	263	22	128	70	34
9	36	46	119	23	27	350	1040	232	31	109	70	31
10	34	46	115	22	33	293	1010	195	30	95	66	32
11	34	45	111	21	38	251	972	139	32	86	63	28
12	36	44	107	24	41	232	831	137	33	86	63	25
13	38	41	103	24	44	160	613	109	31	82	59	31
14	36	38	99	24	45	473	457	64	30	69	59	45
15	33	36	95	24	46	508	318	38	30	61	57	55
16	32	34	69	24	32	555	230	40	27	58	54	92
17	31	33	55	24	21	488	195	41	27	64	51	138
18	28	32	54	23	21	219	170	42	26	58	45	175
19	27	32	54	23	21	275	153	41	24	54	40	305
20	31	31	54	23	22	874	128	37	23	51	36	367
21	32	31	54	21	22	883	93	36	21	54	37	405
22	31	30	40	14	22	826	74	33	18	67	49	391
23	30	27	31	14	30	892	92	38	17	111	49	337
24	38	28	31	14	40	879	95	37	16	153	52	260
25	49	77	30	16	134	844	103	37	17	260	49	172
26	54	148	31	23	646	752	115	34	16	305	44	109
27	58	160	31	30	888	623	121	32	16	175	40	61
28	57	172	22	33	905	538	123	30	16	95	36	44
29	55	170	17	33	---	496	119	27	20	69	33	41
30	54	157	17	32	---	488	113	25	22	67	32	40
31	64	---	17	27	---	496	---	22	---	66	31	---
TOTAL	1249	1941	2434	677	3224	17291	12107	2634	697	2890	1579	3466
MEAN	40.3	64.7	78.5	21.8	115	558	404	85.0	23.2	93.2	50.9	116
MAX	64	172	148	33	905	901	1090	278	33	305	70	405
MIN	27	27	17	14	16	160	30	22	16	45	31	25

CAL YR 1976 TOTAL 60157 MEAN 164 MAX 1270 MIN 17
WTR YR 1977 TOTAL 50189 MEAN 138 MAX 1090 MIN 14

03130000 BLACK FORK BELOW CHARLES MILL DAM, NEAR MIFFLIN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
22...	0930	883	400	7.8	6.0	11.0	88	2.9	170	74	48	12
JUN												
30...	1300	16	490	7.8	24.0	7.8	92	5.3	200	51	50	18

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
22...	15	3.6	116	0	95	2.9	54	28	.1	6.3	224	3.4
JUN												
30...	20	3.2	180	0	148	4.6	58	31	.2	5.3	274	.05

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
22...	.04	.18	.12	2	50	5	60	5	20	.0	50	8.2
JUN												
30...	.01	.18	.19	7	<10	4	30	14	10	.0	50	12

03130500 TOUBY RUN AT MANSFIELD, OH

LOCATION.--Lat 40°45'53", long 82°32'43", in NW 1/4 sec. 20, T.21 N., R.18 W., Richland County, Hydrologic Unit 05040002, on left bank 100 ft (30 m) downstream from West 4th Street bridge at west edge of Mansfield, and 2 mi (3 km) upstream from mouth.

DRAINAGE AREA.--5.44 mi² (14.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 1,216.42 ft (370.765 m) above mean sea level, adjustment of 1912 (levels by city of Mansfield).

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--31 years, 5.06 ft³/s (0.143 m³/s), 12.63 in/yr (321 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 965 ft³/s (27.3 m³/s) June 6, 1947, gage height, 4.17 ft (1.271 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on the basis of slope-area measurements at gage heights 2.49 ft (0.759 m) and 4.17 ft (1.27 m) and computation of flow over dam at gage height 3.94 ft (1.201 m); no flow July 29, 1975 and part of each day Sept. 4, 1965, Nov. 10, 1967, July 30, 31, Aug. 1, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft³/s (10.8 m³/s) July 21 (base 200 ft³/s (5.66 m³/s) gage height, 2.30 ft (0.701 m); minimum discharge, 0.20 ft³/s (0.006 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	1.9	2.3	1.2	.58	1.4	2.6	1.4	1.2	10	.79	.79
2	.79	1.4	2.3	1.1	.56	1.2	70	3.4	.97	.79	.79	4.3
3	.79	1.2	1.9	1.1	.54	1.2	21	1.4	.97	.50	.79	3.0
4	.97	1.2	1.9	1.1	.54	12	11	25	.97	7.1	.79	.40
5	.97	.97	1.7	1.1	.52	5.9	14	10	2.3	1.2	9.7	.40
6	1.9	.97	2.6	1.1	.52	2.3	9.1	3.4	1.2	.64	3.0	.50
7	.97	.97	7.1	1.1	.52	1.9	5.9	2.3	.97	13	7.8	.50
8	.79	.97	2.6	1.1	.50	1.4	4.3	1.4	2.3	3.0	.79	.50
9	5.9	1.4	2.3	1.1	.50	1.7	3.0	1.2	6.5	.79	.79	.64
10	1.4	1.4	1.9	1.1	.75	1.7	2.6	.97	.97	.64	.79	1.7
11	.79	1.2	2.3	1.0	1.9	1.4	2.3	.97	1.4	7.8	12	.30
12	.97	.96	1.7	1.0	4.7	15	1.9	.97	1.2	1.9	5.9	.79
13	1.2	.96	1.5	1.0	6.0	28	1.7	.79	.79	.97	2.6	13
14	1.4	.79	1.5	1.0	2.9	14	1.4	.79	.97	.79	.97	11
15	1.7	.96	1.4	1.0	1.7	9.1	1.2	.79	.97	.97	1.2	1.7
16	1.9	.79	1.4	1.0	1.1	3.8	1.2	.79	.97	1.7	.97	44
17	1.7	.79	1.4	1.0	.75	3.4	1.2	.79	2.3	1.2	.79	24
18	1.9	.96	1.4	1.0	.58	67	.97	.79	.79	.79	.79	20
19	2.3	.96	1.4	1.0	.50	17	.97	.79	.64	.97	.64	20
20	5.3	.96	1.3	1.0	.40	13	.79	.79	.64	.79	.50	3.8
21	1.4	.96	1.3	.96	.40	7.1	.79	.79	.64	61	7.1	1.7
22	1.2	1.1	1.3	.94	1.7	28	3.4	4.8	.64	15	7.8	1.2
23	1.4	1.6	1.3	.92	19	17	5.9	13	.64	1.9	.79	.97
24	9.1	1.9	1.3	.90	27	12	3.0	3.0	.64	1.2	.79	.97
25	5.3	2.3	1.2	.88	9.7	4.8	3.4	.97	1.9	2.6	.64	.97
26	1.9	5.9	1.2	.80	4.3	3.4	3.0	.97	.64	.79	.64	1.2
27	1.4	4.8	1.2	.75	3.8	3.0	1.4	.79	.50	.79	.50	1.2
28	1.2	2.6	1.2	.70	2.3	25	5.9	.64	1.2	.64	.64	1.4
29	1.2	2.3	1.2	.66	---	16	2.3	.64	5.3	5.3	.64	1.2
30	1.7	3.4	1.2	.63	---	5.9	1.4	.64	18	1.4	.79	1.2
31	7.1	---	1.2	.61	---	3.4	---	1.2	---	.64	.64	---
TOTAL	67.51	48.57	55.5	29.85	94.26	328.0	187.62	86.17	59.12	146.80	73.36	163.33
MEAN	2.18	1.62	1.79	.96	3.37	10.6	6.25	2.78	1.97	4.74	2.37	5.44
MAX	9.1	5.9	7.1	1.2	27	67	70	25	18	61	12	44
MIN	.79	.79	1.2	.61	.40	1.2	.79	.64	.50	.50	.50	.30
CFSM	.40	.30	.33	.18	.62	1.95	1.15	.51	.36	.87	.44	1.00
IN.	.46	.33	.38	.20	.64	2.24	1.28	.59	.40	1.00	.50	1.12

CAL YR 1976 TOTAL 1731.35 MEAN 4.73 MAX 124 MIN .30 CFSM .87 IN 11.84
WTR YR 1977 TOTAL 1340.09 MEAN 3.67 MAX 70 MIN .30 CFSM .68 IN 9.16

03130500 TOUBY RUN AT MANSFIELD, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
21...	1315	7.1	610	8.2	8.5	10.4	89	2.4	220	99	63	16
JUL												
12...	1200	1.7	715	7.9	22.5	8.7	99	2.7	250	91	73	17

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
21...	40	2.9	152	0	125	1.5	71	78	.1	7.6	354	1.9
JUL												
12...	54	4.1	197	0	162	4.0	69	89	.3	8.5	412	2.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
21...	.02	.16	.10	1	30	3	20	5	60	.0	100	7.5
JUL												
12...	.04	.05	.16	2	<10	5	60	11	40	.0	30	7.4

03131500 BLACK FORK AT LOUDONVILLE, OH

LOCATION.--Lat 40°38'09", long 82°14'22", in NW 1/4 sec. 1, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, on right bank at upstream side of bridge on State Highway 3 at Loudonville, 1.5 mi (2.4 km) downstream from Big Run.

DRAINAGE AREA.--349 mi² (904 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1931 to current year.

REVISED RECORDS.--WSP 873: 1935. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 929.16 ft (283.208 m) above mean sea level. Prior to Oct. 23, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since 1936 by Charles Mill Lake, 16 mi (26 km) upstream from station (see station 03129500). Records include diversion from Clear Fork Reservoir which enters the Black Fork drainage as sewage effluent from the city of Mansfield (see REMARKS for station 03133500).

AVERAGE DISCHARGE.--46 years, 339 ft³/s (9.600 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,460 ft³/s (240 m³/s) July 5, 1969, gage height, 14.11 ft (4.301 m), from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of contracted-opening measurement of peak flow; minimum daily, 29 ft³/s (0.82 m³/s) Aug. 7, 8, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft³/s (77.9 m³/s) Apr. 3, gage height, 9.77 ft (2.978 m); minimum daily, 84 ft³/s (2.38 m³/s) Jan. 5-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	204	255	85	174	1080	661	268	121	554	136	99
2	131	169	252	85	169	1030	1480	268	104	170	133	99
3	126	163	246	85	152	903	1680	268	102	163	127	187
4	112	158	240	85	155	878	809	394	95	274	118	121
5	116	155	234	84	155	890	1140	406	92	224	178	102
6	116	149	237	84	142	689	1210	403	107	199	166	102
7	126	144	273	84	139	654	1400	456	102	234	333	102
8	116	142	237	84	139	602	1350	423	102	710	227	102
9	129	136	225	84	134	530	1290	388	163	289	178	95
10	174	134	222	84	131	465	1240	343	124	224	163	107
11	119	131	222	86	158	413	1190	283	115	199	152	95
12	116	129	216	92	249	428	1060	286	124	330	258	85
13	116	126	210	92	366	1140	833	244	115	211	166	102
14	119	121	201	88	252	825	665	202	115	181	149	286
15	112	116	198	90	207	757	521	133	110	163	136	142
16	112	119	172	92	177	744	406	127	107	152	136	403
17	109	116	140	96	136	695	363	133	110	202	127	509
18	104	116	130	96	134	1550	330	133	127	166	118	391
19	107	116	120	96	126	821	308	133	102	159	107	722
20	109	114	120	96	124	1220	286	127	95	142	104	596
21	147	112	110	96	116	1150	241	124	95	149	104	586
22	116	109	110	96	124	1270	211	118	92	824	286	557
23	112	116	100	92	425	1250	286	159	90	274	156	499
24	183	114	98	88	1170	1150	271	178	88	258	133	423
25	237	112	95	88	757	1060	274	139	118	347	130	347
26	169	279	90	94	840	964	268	127	99	420	121	244
27	155	339	88	110	1130	830	268	118	85	324	115	184
28	149	303	86	150	1120	827	268	112	90	208	110	127
29	147	285	86	186	---	867	268	107	136	149	99	121
30	144	273	86	225	---	716	268	104	110	178	104	118
31	234	---	86	201	---	693	---	104	---	149	102	---
TOTAL	4198	4800	5185	3194	9101	27091	20845	6808	3235	8226	4672	7653
MEAN	135	160	167	103	325	874	695	220	108	265	151	255
MAX	237	339	273	225	1170	1550	1680	456	163	824	333	722
MIN	104	109	86	84	116	413	211	104	85	142	99	85

CAL YR 1976 TOTAL 122851 MEAN 336 MAX 1950 MIN 86
WTR YR 1977 TOTAL 105008 MEAN 288 MAX 1680 MIN 84

03131500 BLACK FORK AT LOUDONVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 22...	1310	1350	460	7.8	5.5	10.5	83	5.8	180	72	49	13
JUN 30...	1230	101	460	7.3	20.0	6.3	68	6.5	180	28	50	14

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 22...	20	3.7	127	0	104	3.2	55	35	.1	7.0	246	3.1
JUN 30...	24	3.0	188	0	154	15	49	34	.2	8.1	275	1.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 22...	.05	.45	.30	3	40	36	60	8	30	.0	90	--
JUN 30...	.03	.06	.36	3	160	35	40	16	120	.0	50	8.4

03133500 CLEAR FORK BELOW PLEASANT HILL DAM, NEAR PERRYSVILLE, OH

LOCATION.--Lat 40°37'13", long 82°19'28", in NE 1/4 sec. 7, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, on right bank 0.2 mi (0.3 km) downstream from Pleasant Hill Dam, 2.8 mi (4.5 km) south of Perrysville, and 4.7 mi (7.6 km) upstream from the confluence of Clear Fork and Black Fork.

DRAINAGE AREA.--198 mi² (513 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Published as Clear Fork near Perrysville prior to 1940. Monthly discharge only for October 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 967.00 ft (294.741 m) above mean sea level, adjustment of 1912. Prior to May 1, 1947, water-stage recorder at site 0.5 mi (0.8 km) downstream at datum 4.88 ft (1.487 m) lower.

REMARKS.--Records good. Flow regulated by Pleasant Hill Lake (see station 03133000). Water diverted from Clear Fork Reservoir (upstream from Pleasant Hill Lake) for municipal supply of city of Mansfield since 1953; diversion not included in figures of daily discharge.

AVERAGE DISCHARGE.--39 years, 193 ft³/s (5.466 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) Jan. 23, 1959, gage height, 4.89 ft (1.490 m); minimum daily, 0.6 ft³/s (0.017 m³/s) Nov. 2, 4, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s (30.0 m³/s) Apr. 11, gage height, 3.45 ft (1.052 m); minimum daily, 32 ft³/s (0.906 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	103	138	84	50	343	290	155	103	150	50	40
2	41	104	172	60	52	202	375	152	87	168	47	41
3	40	99	152	50	52	159	690	155	76	124	44	44
4	39	90	152	50	52	161	890	182	70	118	42	42
5	39	84	152	52	52	266	1020	326	64	200	54	40
6	40	79	152	52	50	322	918	389	67	168	67	38
7	40	74	192	60	52	248	760	361	61	138	85	36
8	39	70	197	64	52	177	806	302	58	146	114	34
9	44	66	180	64	50	160	830	251	76	122	128	33
10	46	64	177	64	50	168	886	215	73	99	104	34
11	47	63	177	64	50	161	925	185	68	84	88	32
12	46	61	177	64	50	172	995	161	67	80	90	35
13	46	59	177	64	50	482	486	148	64	84	79	42
14	42	58	177	64	52	522	215	138	61	79	70	47
15	48	56	175	64	52	526	212	128	58	70	64	44
16	38	56	175	64	52	650	225	116	55	64	61	52
17	37	55	175	64	49	695	192	110	54	68	58	67
18	36	55	175	61	47	584	161	104	56	74	52	77
19	37	54	175	60	49	670	161	101	56	104	47	163
20	41	53	172	69	50	750	157	94	53	97	45	195
21	47	54	172	58	50	755	150	87	47	85	47	152
22	44	54	172	58	50	755	150	82	44	108	64	118
23	41	52	172	58	50	750	163	82	42	106	70	97
24	55	50	172	52	305	735	177	84	42	90	66	85
25	88	52	170	53	575	690	182	82	58	84	58	82
26	103	58	170	52	597	482	180	77	59	73	53	73
27	95	74	124	52	561	354	172	73	54	63	49	64
28	85	88	84	52	430	275	166	70	49	58	47	58
29	77	90	84	52	---	322	168	67	53	54	45	53
30	73	80	84	50	---	354	163	64	49	55	42	50
31	84	---	84	52	---	326	---	67	---	53	41	---
TOTAL	1614	2055	4907	1817	3631	13224	12785	4608	1824	3066	1971	1968
MEAN	52.1	68.5	158	58.6	130	427	426	149	60.8	98.9	63.6	65.6
MAX	103	104	197	84	597	755	1020	389	103	200	128	195
MIN	36	50	84	50	47	159	150	64	42	53	41	32
(+)	15.5	14.5	14.6	15.4	16.9	16.9	14.8	14.5	14.9	14.4	14.9	14.1

CAL YR 1976 TOTAL 67871 MEAN 185 MAX 946 MIN 24 (+) 13.2
WTR YR 1977 TOTAL 53470 MEAN 146 MAX 1020 MIN 32 (+) 15.1

+ Diversion in cubic feet per second, from Clear Fork Reservoir for municipal supply; furnished by city of Mansfield.

03133500 CLEAR FORK BELOW PLEASANT HILL DAM, NEAR PERRYSVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA+MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
21...	1645	755	290	7.8	7.0	11.4	93	1.9	120	38	32	9.3
JUL												
12...	1500	79	340	7.8	26.0	7.7	94	3.9	150	28	38	13

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
21...	11	2.9	100	0	82	2.5	27	20	.1	6.3	158	1.7
JUL												
12...	9.8	2.2	149	0	122	3.8	21	17	.1	3.2	178	.23

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
21...	.02	.17	.07	2	10	2	60	4	10	.0	110	--
JUL												
12...	.02	.17	.04	3	10	0	20	3	20	.0	40	5.8

03135000 LAKE FORK BELOW MOHICANVILLE DAM, NEAR MOHICANVILLE, OH

LOCATION.--Lat 40°43'24", long 82°09'18", in sec. 3, T.20 N., R.15 W., Ashland County, Hydrologic Unit 05040002, on right bank 800 ft (244 m) downstream from Mohicanville Dam, 2 mi (3 km) east of Mohicanville, and 2.4 mi (3.9 km) downstream from the confluence of Jerome and Muddy Forks.

DRAINAGE AREA.--271 mi² (702 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Published as Lake Fork near Mohicanville prior to 1940.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 930.00 ft (283.464 m) above mean sea level, adjustment of 1912. Prior to July 25, 1949, water-stage recorder at site 500 ft (152 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Mohicanville Reservoir (see station 03134500).

AVERAGE DISCHARGE.--39 years, 231 ft³/s (6.542 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,490 ft³/s (155 m³/s) July 5, 1969, gage height, 14.32 ft (4.365 m); minimum daily, 1 ft³/s (0.028 m³/s) June 10, 1947, Jan. 25, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft³/s (35.1 m³/s) Feb. 24, gage height, 7.84 ft (2.390 m); minimum daily, 18 ft³/s (0.51 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	150	36	30	28	912	217	138	35	188	33	24
2	33	104	35	30	28	605	596	140	32	68	38	24
3	30	79	29	30	28	428	954	174	32	40	28	35
4	29	60	29	29	29	824	944	336	31	278	25	27
5	27	58	29	30	29	634	924	747	71	370	32	23
6	28	46	28	28	29	358	920	552	172	134	45	69
7	30	40	47	27	29	252	914	287	94	89	159	51
8	38	37	48	28	29	231	924	194	60	495	112	38
9	34	36	40	27	29	209	924	147	104	149	75	24
10	67	36	36	26	31	186	927	126	97	85	62	23
11	52	36	40	25	53	158	914	112	62	63	57	28
12	45	36	40	25	90	601	883	99	54	269	116	18
13	40	34	38	25	247	965	744	99	49	147	82	25
14	39	33	33	29	283	911	397	91	43	71	58	299
15	45	31	34	27	213	832	264	73	39	50	46	147
16	47	31	34	26	175	513	182	68	37	43	39	329
17	36	31	34	26	149	352	158	64	36	56	36	626
18	34	32	33	27	126	782	140	62	40	94	32	367
19	36	33	32	28	111	954	126	60	35	59	30	602
20	41	31	39	28	96	933	114	53	29	41	27	679
21	68	31	45	28	85	920	93	51	27	62	28	441
22	54	30	42	29	177	908	102	47	26	696	128	200
23	47	30	37	29	996	924	161	58	24	222	89	136
24	59	27	32	27	1140	920	222	59	24	96	53	105
25	104	29	30	28	949	917	264	50	37	72	41	94
26	93	34	30	29	932	818	344	42	34	63	34	79
27	71	68	31	28	916	518	290	39	24	49	30	67
28	67	58	32	29	948	484	186	37	24	42	27	59
29	69	48	32	30	---	768	220	35	39	37	24	53
30	64	38	30	30	---	457	172	32	34	50	24	50
31	110	---	30	29	---	290	---	32	---	38	25	---
TOTAL	1566	1359	1085	867	7975	19544	14220	4104	1445	4216	1627	4726
MEAN	50.5	45.3	35.0	28.0	285	630	474	132	48.2	136	52.5	158
MAX	110	150	48	30	1140	965	954	747	172	696	159	679
MIN	27	27	28	25	28	158	93	32	24	37	24	18

CAL YR 1976 TOTAL 71148 MEAN 194 MAX 1200 MIN 16
WTR YR 1977 TOTAL 62734 MEAN 172 MAX 1140 MIN 18

03135000 LAKE FORK BELOW MOHICANVILLE DAM, NEAR MOHICANVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 17...	1545	367	490	7.8	9.0	8.6	74	3.1	200	110	57	15
JUN 30...	1100	30	630	7.4	20.0	4.8	52	4.4	250	60	70	18

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 17...	21	5.0	120	0	98	3.0	71	39	.1	7.6	275	4.1
JUN 30...	33	4.9	230	0	189	15	72	47	.3	8.2	367	1.4

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 17...	.07	.24	.18	4	20	90	50	10	100	.0	120	4.8
JUN 30...	.12	.72	.56	4	10	9	100	6	230	.0	60	8.6

03136400 NORTH BRANCH KOKOSING RIVER NEAR FREDERICKTOWN, OH

LOCATION.--Lat 40°30'15", long 82°33'46", Knox County, Hydrologic Unit 05040003, on left bank, 0.8 mi (1.3 km) downstream from dam at North Branch Kokosing River Lake, 1. mi (2.7 km) northwest of Fredericktown, and 2.2 mi (3.5 km) upstream from East Branch.

DRAINAGE AREA.--46.0 mi² (119 km²). Area at site used prior to October 1, 1974, 45.5 mi² (118 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional discharge measurements, water years 1962-72, and annual maximum, water years, 1963-72. July 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,086.07 ft (331.034 m) above mean sea level. Prior to Oct. 1, 1974 at site 0.3 mi (0.5 km) upstream at datum 5.96 ft (1.817 m) higher.

REMARKS.--Records fair except those for winter periods, which are poor. Flow regulated by North Branch Kokosing River Lake 0.8 mi (1.3 km) upstream (see station 03136300), since June 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft³/s (170 m³/s) May 19, 1969, gage height, 9.95 ft (3.033 m) from rating extended above 3,700 ft³/s(105 m³/s) at site and datum then in use; minimum daily, 0.45 ft³/s (0.013 m³/s) June 12-15,1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1959 reached a stage of 13.4 ft (4.08 m) at site and datum then in use, from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 592 ft³/s (16.8 m³/s) Apr. 3, gage height, 5.37 ft (1.637 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	65	18	4.9	4.4	52	39	28	9.0	94	6.6	2.9
2	10	47	17	4.8	4.4	44	345	25	8.0	64	5.3	2.6
3	8.0	35	14	4.8	4.4	39	549	26	7.0	34	4.9	2.6
4	7.5	27	13	4.7	4.4	86	525	48	7.0	57	4.2	2.4
5	7.0	23	11	4.7	4.4	183	503	135	6.6	111	3.8	1.9
6	7.5	19	11	4.7	4.3	76	383	133	7.5	64	4.5	3.8
7	8.0	18	16	4.7	4.3	61	155	66	7.0	35	5.7	3.8
8	7.0	16	20	4.6	4.3	47	69	49	7.0	32	36	3.2
9	9.1	13	18	4.6	4.3	39	56	38	13	25	64	2.4
10	11	13	15	4.6	4.3	37	49	33	14	20	30	2.1
11	11	13	15	4.[illegible]	4.3	34	44	29	12	18	19	1.7
12	10	11	15	4.5	23	37	40	26	11	16	18	1.3
13	10	11	15	4.5	17	402	38	24	10	16	14	1.7
14	7.5	10	13	4.5	13	203	36	23	9.0	13	11	4.2
15	6.5	9.6	12	4.5	17	76	34	21	8.0	11	9.5	4.5
16	6.0	9.6	10	4.5	20	69	32	19	7.0	11	9.5	4.9
17	5.6	9.1	9.8	4.5	18	51	30	18	7.0	16	9.0	6.6
18	4.8	9.1	9.0	4.5	16	260	30	17	7.0	19	7.0	6.6
19	5.2	9.1	8.4	4.5	15	225	29	16	7.0	34	5.7	9.0
20	7.0	8.5	8.0	4.5	14	106	29	15	6.1	28	4.9	12
21	9.1	8.5	7.5	4.5	13	79	26	14	4.9	29	4.5	9.0
22	9.1	8.5	7.0	4.5	12	95	25	13	4.2	38	4.9	6.6
23	9.1	7.5	6.6	4.5	69	120	29	12	3.8	26	4.9	5.3
24	22	7.5	6.3	4.5	664	69	31	12	3.8	18	4.9	5.3
25	57	7.5	6.0	4.5	756	56	32	13	8.5	14	4.5	5.7
26	48	9.1	5.7	4.5	271	48	32	12	44	11	4.2	5.7
27	33	26	5.4	4.5	145	43	31	11	28	9.5	3.8	4.5
28	24	33	5.3	4.5	76	49	29	10	20	8.0	3.8	3.5
29	19	29	5.2	4.5	---	79	30	9.0	58	7.0	3.5	2.9
30	16	21	5.1	4.5	---	64	30	8.5	36	7.0	3.2	2.6
31	37	---	5.0	4.5	---	48	---	8.5	---	7.0	3.2	---
TOTAL	444.0	533.6	333.3	141.7	2206.8	2877	3310	912.0	381.4	892.5	318.0	131.3
MEAN	14.3	17.8	10.8	4.57	78.8	92.8	110	29.4	12.7	28.8	10.3	4.38
MAX	57	65	20	4.9	756	402	549	135	58	111	64	12
MIN	4.8	7.5	5.0	4.5	4.3	34	25	8.5	3.8	7.0	3.2	1.3

CAL YR 1976 TOTAL 19280.22 MEAN 52.7 MAX 803 MIN .45
WTR YR 1977 TOTAL 12481.60 MEAN 34.2 MAX 756 MIN 1.3

03136400 NORTH BRANCH KOKOSING RIVER NEAR FREDERICKTOWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to 1971, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAR 23...	1145	144	360	8.4	8.0	12.0	100	.8	170	48	46	14
JUL 05...	1120	123	375	8.4	24.0	8.6	100	3.5	170	36	45	15

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	6.8	2.7	148	2	125	1.0	35	16	.1	6.2	202	2.5
JUL 05...	6.2	2.8	164	2	138	1.1	34	14	.1	2.0	202	1.8

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.01	.06	.05	1	20	3	20	5	30	.0	0	3.8
JUL 05...	.05	.07	.07	3	<10	3	20	17	10	.0	20	5.1

03136500 KOKOSING RIVER AT MOUNT VERNON, OH

LOCATION.--Lat 40°24'20", long 82°30'00", in sec. 2, T.6 N., R.13 W., Knox County, Hydrologic Unit 05040003, on right bank at downstream side of Tilden Avenue Bridge at Mount Vernon, 0.8 mi (1.3 km) downstream from North Branch, and 2.7 mi (4.3 km) upstream from Dry Creek.

DRAINAGE AREA.--202 mi^2 (523 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1953 to current year.

REVISED RECORDS.--WPD Ohio, 1966: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 984.16 ft (299.972 m) above mean sea level, (levels by Corps of Engineers). Prior to Apr. 3, 1953, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods or no gage height record, which are fair. Some regulation by Knox Lake, capacity, 3,750 acre-ft (4.62 hm^3), 8.2 mi (13.2 km) upstream on East Branch of North Branck Kokosing River beginning in 1954 and North Branch Kokosing River Lake 10.0 mi (16.1 km) upstream on North Branch Kokosing River, beginning in June 1972. (see station 03136300).

AVERAGE DISCHARGE.--24 years, (1954-77), 204 ft^3/s (5.777 m^3/s), 13.71 in/yr (348 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft^3/s (1,080 m^3/s) Jan. 21, 1959, gage height, 18.19 ft (5.544 m), from rating curve extended above 9,000 ft^3/s (255 m^3/s) on basis of slope-area measurement of peak flow: minimum daily, 13 ft^3/s (0.37 m^3/s) SEpt. 29, 30, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 25	0330	2400	68.0	5.17	1.576	Apr. 3	0300	*6790	192	*8.57	2.612

Minimum daily discharge, 32 ft^3/s (0.90 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	238	88	47	44	386	247	137	66	247	45	38
2	56	185	77	47	43	306	1770	132	55	231	41	37
3	52	150	79	47	43	276	4620	139	52	130	38	58
4	49	127	66	47	43	420	1640	180	48	205	36	66
5	46	112	69	46	43	687	1640	475	46	408	35	53
6	44	101	65	46	43	475	1060	451	52	243	35	43
7	40	94	87	46	43	361	636	320	48	154	150	41
8	39	88	98	46	43	296	467	231	49	137	370	41
9	48	80	94	46	43	266	375	183	84	117	200	36
10	64	78	79	46	43	250	327	155	76	94	100	34
11	67	78	76	46	43	231	286	139	65	78	66	33
12	60	73	72	46	43	282	253	127	63	83	150	32
13	53	69	67	45	43	1590	228	118	58	77	140	40
14	49	66	62	45	144	959	211	109	53	65	115	150
15	46	64	59	45	165	561	197	103	50	57	118	120
16	44	62	57	45	155	412	180	97	48	53	118	250
17	44	60	55	45	160	327	170	91	49	53	100	325
18	43	58	54	45	155	792	165	84	52	58	85	163
19	42	58	53	45	107	941	157	80	49	64	72	205
20	45	58	52	45	99	614	147	74	44	70	60	292
21	50	57	51	45	89	519	137	68	40	79	52	165
22	48	57	51	45	93	515	135	63	37	130	50	111
23	49	55	50	45	310	596	162	61	36	104	48	84
24	79	53	50	44	1560	447	173	70	37	73	46	70
25	188	54	49	44	2080	357	165	70	50	59	43	64
26	184	63	49	44	1150	310	160	63	105	52	41	60
27	137	111	48	44	683	276	147	58	97	46	41	54
28	109	143	48	44	515	310	144	55	78	43	40	50
29	93	123	48	44	---	427	178	52	225	43	38	47
30	87	100	48	44	---	357	157	50	150	52	39	45
31	158	---	48	44	---	293	---	52	---	48	40	---
TOTAL	2174	2715	1949	1403	8025	14839	16334	4087	1962	3353	2552	2807
MEAN	70.1	90.5	62.9	45.3	287	479	544	132	65.4	108	82.3	93.6
MAX	188	238	98	47	2080	1590	4620	475	225	408	370	325
MIN	39	53	48	44	43	231	135	50	36	43	35	32
CFSM	.35	.45	.31	.22	1.42	2.37	2.69	.65	.32	.54	.41	.46
IN.	.40	.50	.36	.26	1.48	2.73	3.01	.75	.36	.62	.47	.52

CAL YR 1976 TOTAL 64596 MEAN 176 MAX 1980 MIN 35 CFSM .87 IN 11.90
WTR YR 1977 TOTAL 62200 MEAN 170 MAX 4620 MIN 32 CFSM .84 IN 11.45

Note: No gage height record Aug. 4 to Sept. 30.

03136500 KOKOSING RIVER AT MOUNT VERNON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
23...	0945	622	380	8.0	4.0	11.3	86	1.1	180	59	48	15
JUL												
05...	1415	450	425	7.9	24.0	7.5	88	2.8	180	46	50	14

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
23...	8.8	2.8	150	0	123	2.4	40	21	.1	6.1	216	2.5
JUL												
05...	8.3	2.8	166	0	136	3.3	36	18	.1	5.5	217	2.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
23...	.02	.06	.05	1	10	0	30	5	20	.0	0	4.2
JUL												
05...	.05	.06	.19	3	<10	11	20	19	10	.0	40	8.0

03138500 WALHONDING RIVER BELOW MOHAWK DAM, AT NELLIE, OH

LOCATION.--Lat 40°20'29", long 82°03'56", in T.6 N., R.8 W., Coshocton County, Hydrologic Unit 05040003, on right bank at upstream side of bridge on U.S. Highway 36 at Nellie, 0.5 mi (0.8 km) upstream from Mohawk Creek, and 1.7 mi (2.7 km) downstream from Mohawk Dam.

DRAINAGE AREA.--1,505 mi^2 (3,898 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1910 to March 1913 (gage heights and discharge measurements only), September 1921 to current year. Published as Mohican River at Pomerene 1910-13, as Walhonding River at Pomerene 1921-37, and as Walhonding River at Nellie 1938-39.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 790.00 ft (240.792 m) above mean sea level, adjustment of 1912. Prior to Nov. 7, 1925, nonrecording gage and Nov. 7, 1925, to Sept. 30, 1937, water-stage recorder at site 3.8 mi (6.1 km) upstream at datum 15.53 ft (4.734 m) higher. Oct. 1, 1937, to Sept. 30, 1938, nonrecording gage at present site at datum 2.09 ft (0.637 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated beginning 1936 by 5 flood-control reservoirs at points 1.7 mi (2.7 km) to 54 mi (87 km) upstream (see stations 03129500, 03133000, 03134500, 03136300, and 03138000).

AVERAGE DISCHARGE.--56 years, 1,449 ft^3/s (41.0^4 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge at site at Pomerene, 43,800 ft^3/s (1,240 m^3/s) Jan. 25, 1937; maximum discharge at present site since regulation began at Mohawk Dam, 24,000 ft^3/s (680 m^3/s) Jan. 25, 26, 1937, gage height, 18.8 ft (5.73 m), present datum (from floodmarks), from rating curve extended above 13,000 ft^3/s (368 m^3/s); minimum daily discharge, 19 ft^3/s (0.54 m^3/s) Feb. 27 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 26.9 ft (8.20 m), discharge, 102,000 ft^3/s (2,890 m^3/s), present site and datum, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,690 ft^3/s (218 m^3/s) Feb. 25, gage height, 11.52 ft (3.511 m); minimum daily, 242 ft^3/s (6.85 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	401	1150	530	330	300	4500	2040	1180	434	967	396	279
2	378	970	540	330	300	3260	2860	1100	456	1290	360	274
3	356	803	555	330	300	2620	5680	1110	405	775	332	272
4	334	710	630	320	300	2420	5510	1100	379	724	311	349
5	318	635	680	320	300	3720	4230	2290	367	2330	296	292
6	307	591	715	320	300	3310	4910	2760	443	1520	400	271
7	313	550	740	320	300	2520	6880	2370	536	1000	498	311
8	313	516	750	320	300	2100	6780	1910	441	1340	752	307
9	307	485	761	320	300	1740	6650	1580	540	1300	998	273
10	356	468	725	320	310	1550	6510	1350	617	820	812	260
11	418	456	700	320	330	1460	6710	1200	517	657	645	260
12	361	441	680	310	380	1390	6910	1050	465	609	586	242
13	345	423	660	310	590	5480	6820	971	449	857	685	244
14	323	407	640	310	1400	6150	5650	884	418	622	539	324
15	313	409	620	310	1700	4910	4860	784	399	500	501	744
16	297	502	600	310	1300	3730	2510	690	377	444	475	502
17	292	500	580	310	1100	3200	1570	651	360	434	499	1220
18	297	496	556	310	980	4170	1410	629	383	478	452	1310
19	282	496	530	310	880	6300	1280	604	440	486	385	1920
20	297	491	522	310	800	5410	1200	585	376	476	350	2440
21	323	483	541	310	740	5000	1100	556	333	439	331	1820
22	372	479	560	310	700	4680	1020	520	312	1100	342	1350
23	329	470	570	310	1100	4960	1060	484	297	1410	607	1070
24	367	354	579	310	3800	4520	1340	550	287	745	449	902
25	702	353	520	310	6330	4090	1340	560	300	619	388	808
26	819	369	460	300	6500	3670	1380	498	421	681	356	698
27	672	589	420	300	5660	3000	1400	473	410	648	330	577
28	572	720	390	300	5020	2590	1250	449	379	525	314	476
29	519	640	360	300	---	2940	1420	429	553	432	303	405
30	493	566	340	300	---	2860	1320	405	613	417	308	381
31	695	---	340	300	---	2330	---	381	---	432	289	---
TOTAL	12471	16522	17794	9690	42320	110580	103600	30103	12707	25077	14289	20581
MEAN	402	551	574	313	1511	3567	3453	971	424	809	461	686
MAX	819	1150	761	330	6500	6300	6910	2760	617	2330	998	2440
MIN	282	353	340	300	300	1390	1020	381	287	417	289	242

CAL YR 1976 TOTAL 508717 MEAN 1390 MAX 6960 MIN 282
WTR YR 1977 TOTAL 415734 MEAN 1139 MAX 6910 MIN 242

03138500 WALHONDING RIVER BELOW MOHAWK DAM, AT NELLIE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 14...	1100	6270	330	8.1	8.5	11.1	95	3.7	130	54	37	9.8
JUN 27...	1000	414	425	7.7	24.0	6.5	76	2.3	220	51	59	18

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	14	3.9	96	0	79	1.2	35	26	.1	7.0	180	2.8
JUN 27...	18	2.8	208	0	171	6.6	50	28	.2	5.9	285	.88

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.04	.16	.21	6	20	15	50	15	20	.0	90	8.4
JUN 27...	.01	.08	.15	3	80	9	90	9	50	.0	140	17

03139000 KILLBUCK CREEK AT KILLBUCK, OH

LOCATION (REVISED).--Lat 40°28'53", long 81°59'10", Holmes County, Hydrologic Unit 05040003, on right bank at downstream side of U.S. highway 62 bridge south of Killbuck, 1.2 mi (1.9 km) downstream from Black Creek. Prior to Oct. 5, 1976, at site 0.9 mi (1.4 km) upstream.

DRAINAGE AREA.--464 mi^2 (1,202 km^2), revised. Area at site used prior to Oct. 5, 1976, 462 mi^2 (1.197 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year.

REVISED RECORDS.--WSP 873: 1935. WSP 1555: 1935. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 788.05 ft (240.198 m) above mean sea level, adjustment of 1912. Prior to Oct. 1, 1949, nonrecording gage and Oct. 1, 1949 to Oct. 5, 1976, water-stage recorder and nonrecording gage, at site 0.9 mi (1.4 km) upstream at same datum.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--47 years, 397 ft^3/s (11.24 m^3/s), 11.67 in/yr (296 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft^3/s (1,350 m^3/s) July 5, 1969, gage height, 26.40 ft (8.047 m) (from floodmarks), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement of peak flow at site then in use; minimum, 23 ft^3/s (0.65 m^3/s) Sept. 10-15, 28-30, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge, 3,830 ft^3/s (108 m^3/s) Apr. 3 (base 2,000 ft^3/s 56.6 m^3/s), gage height, 15.33 ft (4.673 m); minimum discharge, 57 ft^3/s (1.61 m^3/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	268	84	62	60	1190	502	372	109	460	170	81
2	68	221	84	62	60	876	1020	356	108	150	128	81
3	61	177	82	62	60	660	3350	381	105	74	108	171
4	58	151	80	62	60	648	2580	407	102	800	98	132
5	59	131	78	62	60	780	2610	601	124	350	94	95
6	59	118	78	62	60	692	2620	690	260	230	154	153
7	58	110	84	62	60	605	2270	623	222	180	431	147
8	60	103	120	62	60	510	1750	499	165	240	484	106
9	65	97	110	62	60	438	1400	400	209	310	568	93
10	90	98	100	62	60	394	1170	322	200	250	481	93
11	90	98	95	62	60	352	923	291	154	210	381	89
12	76	97	88	62	64	340	750	266	142	192	316	80
13	66	92	84	60	360	1380	648	247	130	242	266	85
14	72	87	80	60	560	1380	568	230	119	173	221	164
15	74	86	78	60	480	1200	494	209	109	142	188	244
16	70	83	76	60	380	1070	428	190	103	122	156	224
17	65	81	74	60	280	852	387	181	100	359	160	431
18	62	81	74	60	230	1170	357	174	133	182	133	473
19	62	83	72	60	210	1580	339	166	111	142	126	490
20	68	82	72	60	190	1480	318	158	96	124	109	544
21	96	81	70	60	170	1490	296	144	85	115	103	431
22	99	79	70	60	190	1440	281	130	79	778	181	294
23	84	71	68	60	542	1340	319	132	79	585	230	218
24	102	68	68	60	1470	1200	446	129	75	500	156	182
25	174	69	66	60	1810	1020	515	130	101	422	122	327
26	171	68	66	60	1610	837	516	126	119	326	107	309
27	137	94	66	60	1500	702	517	123	86	236	99	218
28	119	97	64	60	1390	651	483	116	80	185	92	177
29	108	88	64	60	---	677	479	112	172	182	89	150
30	101	84	64	60	---	648	427	106	156	391	90	135
31	174	---	62	60	---	590	---	100	---	300	83	---
TOTAL	2721	3143	2421	1884	12096	28192	28763	8111	3833	8952	6124	6417
MEAN	87.8	105	78.1	60.8	432	909	959	262	128	289	198	214
MAX	174	268	120	62	1810	1580	3350	690	260	800	568	544
MIN	58	68	62	60	60	340	281	100	75	74	83	80
CFSM	.19	.23	.17	.13	.93	1.96	2.07	.57	.28	.62	.43	.46
IN.	.22	.25	.19	.15	.97	2.26	2.31	.65	.31	.72	.49	.51

CAL YR 1976 TOTAL 139235 MEAN 380 MAX 3670 MIN 58 CFSM .82 IN 11.16
WTR YR 1977 TOTAL 112657 MEAN 309 MAX 3350 MIN 58 CFSM .67 IN 9.03

03139000 KILLBUCK CREEK AT KILLBUCK, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	1600	985	425	7.6	10.5	9.1	81	2.6	170	81	47	12
JUN 28...	0930	74	485	7.5	20.5	7.2	79	2.9	220	49	64	15

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	17	4.8	104	0	85	4.2	54	33	.1	7.3	227	3.4
JUN 28...	21	3.6	210	0	172	11	53	33	.2	7.1	301	.67

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.05	.16	.17	4	10	11	40	9	80	.0	50	3.6
JUN 28...	.01	.12	.28	3	<10	11	50	7	290	.0	20	8.1

03140000 MILL CREEK NEAR COSHOCTON, OH

LOCATION.--Lat 40°21'46", long 81°51'45", Coshocton County, Hydrologic Unit 05040003, on left bank 0.5 mi (0.8 km) downstream from Little Mill Creek and 6 mi (10 km) north of Coshocton.

DRAINAGE AREA.--27.2 mi² (70.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for October 1936, published in WSP 1305.

REVISED RECORDS.--WSP 1143: 1946, 1947-48(P). WSP 1907: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 782.00 ft (238.354 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--41 years, 27.4 ft³/s (0.776 m³/s), 13.68 in/yr (347 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,720 ft³/s (247 m³/s) July 5, 1969, gage height, 13.92 ft (4.243 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurement of peak flow; no flow Sept. 28, 29, 1954, Aug. 29-31, 1962, and part of each day Dec. 23, 31, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 735 ft³/s (20.8 m³/s) Apr. 2 (base 700 ft³/s 19.8 m³/s) gage height, 8.60 ft (2.621 m); minimum, 0.87 ft³/s (0.025 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	13	1.8	1.8	1.4	38	28	24	2.8	8.7	18	1.8
2	1.9	8.4	1.6	1.8	1.4	29	374	26	2.3	2.6	4.7	2.1
3	1.8	7.0	1.5	1.7	1.4	27	236	23	2.3	1.4	3.4	2.1
4	1.7	6.1	1.5	1.7	1.4	62	182	23	2.1	124	2.8	1.8
5	1.5	5.5	1.6	1.7	1.4	54	257	23	2.8	21	2.5	2.2
6	1.4	5.0	1.9	1.6	1.4	38	121	39	7.8	9.2	2.4	2.6
7	1.5	4.6	7.4	1.6	1.4	32	80	39	3.3	6.2	3.5	1.8
8	1.7	4.3	6.5	1.6	1.4	27	60	28	3.0	9.7	3.2	1.5
9	2.5	4.0	5.2	1.5	1.4	25	49	23	13	5.3	4.5	1.4
10	5.8	4.3	4.6	1.5	1.6	23	43	20	4.5	4.3	5.1	1.3
11	2.7	4.1	3.8	1.5	3.0	20	38	18	3.2	3.9	4.1	1.3
12	2.1	3.6	3.4	1.5	19	50	33	16	4.1	6.6	8.1	1.0
13	1.8	3.4	3.1	1.5	40	297	29	15	3.3	5.4	4.2	11
14	1.5	3.2	3.0	1.4	66	96	27	13	2.9	3.2	7.2	80
15	1.6	3.4	2.9	1.4	54	59	24	11	2.6	2.6	26	9.5
16	1.5	3.1	2.8	1.4	34	46	21	9.9	2.3	13	10	39
17	1.5	3.0	2.7	1.4	24	37	20	9.3	2.1	53	18	28
18	1.3	3.5	2.6	1.4	17	226	19	8.6	7.9	12	9.7	16
19	1.4	3.5	2.5	1.4	14	112	18	8.1	5.0	6.3	6.3	137
20	1.9	3.1	2.5	1.4	12	90	16	7.1	2.9	4.8	5.2	130
21	6.0	2.8	2.4	1.4	11	61	16	6.5	2.1	16	4.6	42
22	2.6	2.6	2.3	1.4	10	87	15	5.8	1.7	28	5.7	28
23	2.0	2.3	2.2	1.4	60	63	24	5.4	1.6	8.0	4.1	22
24	12	2.1	2.2	1.4	400	50	23	5.2	1.5	5.7	3.6	17
25	12	2.5	2.1	1.4	207	42	24	5.2	1.7	5.1	3.2	16
26	6.3	4.0	2.1	1.4	111	36	23	4.5	2.1	4.1	2.6	29
27	4.4	4.9	2.0	1.4	74	32	21	4.0	1.5	3.2	2.4	18
28	3.5	3.8	2.0	1.4	48	45	31	3.8	1.4	2.8	2.2	14
29	3.2	3.2	1.9	1.4	---	48	39	3.5	2.1	3.7	1.9	12
30	3.2	2.3	1.9	1.4	---	38	28	3.2	1.4	11	2.0	10
31	28	---	1.8	1.4	---	32	---	3.1	---	4.4	2.1	---
TOTAL	122.5	126.6	85.8	46.2	1218.2	1922	1919	434.2	97.3	395.2	183.3	679.4
MEAN	3.95	4.22	2.77	1.49	43.5	62.0	64.0	14.0	3.24	12.7	5.91	22.6
MAX	28	13	7.4	1.8	400	297	374	39	13	124	26	137
MIN	1.3	2.1	1.5	1.4	1.4	20	15	3.1	1.4	1.4	1.9	1.0
CFSM	.15	.16	.10	.06	1.60	2.28	2.35	.52	.12	.47	.22	.83
IN.	.17	.17	.12	.06	1.67	2.63	2.62	.59	.13	.54	.25	.93

CAL YR 1976 TOTAL 7877.2 MEAN 21.5 MAX 467 MIN 1.3 CFSM .79 IN 10.77
WTR YR 1977 TOTAL 7229.7 MEAN 19.8 MAX 400 MIN 1.0 CFSM .73 IN 9.89

03140000 MILL CREEK NEAR COSHOCTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
14...	1500	79	235	8.1	8.0	10.8	91	1.1	94	52	27	6.5
JUN												
27...	1300	1.4	335	7.3	22.0	7.4	84	1.4	140	39	39	9.7

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
14...	5.5	3.1	51	0	42	.6	48	9.2	.1	8.4	133	2.6
JUN												
27...	14	4.4	120	0	98	9.6	48	17	.2	5.4	197	.31

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
14...	.01	.07	.09	2	10	9	40	6	170	.0	10	6.3
JUN												
27...	.01	.10	.03	2	10	4	150	4	270	.0	130	8.1

03140500 MUSKINGUM RIVER NEAR COSHOCTON, OH

LOCATION.--Lat 40°14'54", long 81°52'23", in T.5 N., R.6 W., Coshocton County, Hydrologic Unit 05040004, on right bank at upstream side of highway bridge, 1 mi (2 km) southwest of Coshocton, and 2 mi (3 km) downstream from confluence of Tuscarawas and Walhonding Rivers.

DRAINAGE AREA.--4,859 mi² (12,585 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1936 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 730.00 ft (222.504 m) above mean sea level, adjustment of 1912. Prior to Sept. 19, 1936, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by 13 flood-control reservoirs at points 19 mi (31 km) to 88 mi (142 km) upstream.

AVERAGE DISCHARGE.--41 years, 4,822 ft³/s (136.6 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,700 ft³/s (2,230 m³/s) Jan. 26, 1937, gage height, 21.98 ft (6.700 m); minimum daily, 420 ft³/s (11.9 m³/s) Sept. 13, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 28.8 ft (8.78 m), discharge, 202,000 ft³/s (5,720 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,200 ft³/s (600 m³/s) Apr. 5, gage height, 10.29 ft (3.136 m); minimum daily, 900 ft³/s (25.5 m³/s) Jan. 12 to Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	2790	1930	1000	900	13600	5980	4410	1280	2250	2020	1220
2	1530	3190	2050	1000	900	10900	7920	4010	1340	3490	1870	1180
3	1410	2830	1860	1000	900	9330	17200	3870	1280	2480	1630	1210
4	1250	2440	1810	950	900	8180	19400	4060	1220	2690	1470	1990
5	1190	2170	1990	950	900	9820	20500	4990	1180	5180	1340	1740
6	1120	1970	1970	950	900	8920	19000	6490	1610	6380	1350	1370
7	1190	1840	2270	950	900	6960	20200	7110	2300	4630	1940	1330
8	1200	1710	2640	950	900	5730	19100	6190	2140	3510	3800	1360
9	1230	1600	3130	950	900	4940	17600	5200	2010	3770	4690	1200
10	1350	1560	2780	950	950	4510	17300	4610	2400	2900	4390	1100
11	1650	1550	2690	950	1010	4150	16700	4410	2570	2370	3650	1050
12	1670	1520	2620	900	1150	3960	16400	3830	2110	2290	3140	1010
13	1550	1470	2580	900	1620	10300	15500	3350	1810	2290	2880	979
14	1440	1480	2390	900	2490	15100	13700	3080	1640	2380	2540	1660
15	1340	1350	2310	900	3220	14800	12300	2870	1540	1920	2590	2790
16	1220	1530	2130	900	3560	12000	9590	2630	1440	1680	2660	3030
17	1130	1970	1860	900	3280	9980	6600	2440	1340	1780	2660	3240
18	1080	1880	1730	900	2760	10500	5200	2310	1600	2220	2790	4260
19	1040	1740	1750	900	2400	15300	4710	2210	2970	2160	2420	4630
20	1040	1680	1820	900	2300	15600	4360	2170	2690	1930	2090	7930
21	1130	1660	1920	900	2200	14600	4100	2070	2340	1670	1850	6890
22	1270	1630	2050	900	2270	13200	3790	1940	1840	3520	1740	5940
23	1290	1600	1960	900	2980	13600	3650	1780	1600	6210	2160	4950
24	1430	1530	1680	900	9350	13600	3980	1830	1470	5120	2250	3530
25	1830	1520	1400	900	16600	12400	4820	1780	1400	4490	1840	3060
26	2470	1780	1300	900	18200	11000	5040	1690	1490	3730	1610	3290
27	2450	2020	1200	900	17100	9140	4740	1610	1560	3110	1470	3230
28	2090	2230	1100	900	14800	7530	4420	1520	1410	2500	1360	2690
29	1820	2300	1100	900	---	7350	4740	1440	1430	2100	1250	2230
30	1660	2150	1000	900	---	7990	4750	1370	1770	2100	1240	1960
31	1900	---	1000	900	---	6970	---	1300	---	2070	1280	---
TOTAL	45630	56610	60020	28600	116340	311160	313290	98570	52780	94920	69970	82049
MEAN	1472	1887	1936	923	4155	10040	10440	3180	1759	3062	2257	2735
MAX	2470	3190	3130	1000	18200	15600	20500	7110	2970	6380	4690	7930
MIN	1040	1350	1000	900	900	3960	3650	1300	1180	1670	1240	979

CAL YR 1976 TOTAL 1613360 MEAN 4408 MAX 21000 MIN 1000
WTR YR 1977 TOTAL 1329939 MEAN 3644 MAX 20500 MIN 900

03140500 MUSKINGUM RIVER NEAR COSHOCTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
21...	1600	15200	458	7.8	7.0	11.0	90	9.3	160	83	43	12
JUL												
13...	1330	2530	765	7.8	26.0	8.3	100	5.0	260	140	74	19

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
21...	22	3.7	90	0	74	2.3	63	40	.1	7.2	236	2.6
JUL												
13...	56	4.5	156	0	128	4.0	120	86	.2	7.9	445	1.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
21...	.02	.12	.17	4	<10	10	30	8	120	.0	50	--
JUL												
13...	.01	.04	.17	2	30	6	590	7	100	.0	60	8.5

03141500 SENECA FORK BELOW SENECAVILLE DAM, NEAR SENECAVILLE, OH

LOCATION.--Lat 39°55'28", long 81°26'17", Guernsey County, Hydrologic Unit 05040005, on left bank 650 ft (198 m) downstream from Senecaville Dam, and 1.5 mi (2.4 km) southeast of Senecaville.

DRAINAGE AREA.--118 mi² (306 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1938 to current year. Published as Seneca Fork near Senecaville prior to 1940.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 799.00 ft (243.535 m) above mean sea level, adjustment of 1912. Prior to Jan. 28, 1942, at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records fair. Flow regulated by Senecaville Lake (see station 03141000). Water is diverted from Senecaville Lake for U.S. Fish Hatchery; diversion not included in figures of daily discharge.

AVERAGE DISCHARGE.--39 years, 128 ft³/s (3.625 m³/s) (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 914 ft³/s (25.9 m³/s) Apr. 7, 1964, gage height, 9.35 ft (2.850 m); maximum gage height, 10.35 ft (3.155 m) Feb. 1, 1949; no flow May 3, 4, 1939, Jan. 28, 29, Feb. 4, 5, Apr. 25, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 628 ft³/s (17.8 m³/s) Apr. 8, gage height, 8.08 ft (2.463 m); minimum daily, 1.8 ft³/s (0.051 m³/s) June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	91	220	16	6.0	51	119	85	9.0	4.5	6.5	8.7
2	4.5	91	218	16	4.0	62	132	57	1.9	4.5	5.1	8.7
3	4.8	91	248	16	4.0	65	2.2	44	4.5	4.3	4.8	8.7
4	5.4	91	216	16	4.0	65	2.6	44	4.3	4.0	4.0	8.7
5	5.1	91	214	16	4.0	66	3.3	78	1.8	4.0	5.1	8.7
6	4.8	91	214	16	4.0	66	60	91	1.9	4.0	6.2	8.7
7	4.5	91	347	16	4.0	162	341	35	3.3	3.8	6.5	8.4
8	4.5	35	430	16	4.0	375	548	95	4.3	3.8	65	8.7
9	4.8	4.0	422	16	4.0	405	615	297	3.6	4.0	188	9.0
10	5.1	4.3	416	16	34	403	610	463	3.6	3.6	248	8.7
11	4.8	4.0	418	16	14	182	603	447	3.8	3.8	232	8.7
12	4.8	3.8	323	16	6.2	44	610	257	3.3	4.8	224	8.7
13	4.8	3.8	190	16	19	44	610	122	3.6	4.5	154	10
14	4.5	3.8	89	16	6.0	222	608	43	4.3	4.8	68	15
15	4.5	216	32	16	5.7	447	589	43	4.3	4.0	47	37
16	4.3	321	48	16	5.7	436	542	43	4.8	3.8	47	87
17	4.8	323	53	16	5.7	426	532	32	5.1	2.9	71	101
18	4.8	244	53	16	5.7	218	176	13	4.5	2.9	162	101
19	6.2	210	53	16	5.7	2.1	4.0	13	4.8	3.8	137	105
20	5.1	207	69	16	5.4	1.9	4.3	13	4.5	4.0	49	108
21	4.5	210	63	16	5.4	248	4.0	13	4.3	3.8	49	68
22	4.5	210	49	16	5.4	458	9.9	13	4.0	3.8	23	48
23	4.8	210	46	16	5.4	452	12	13	4.0	3.6	7.8	48
24	3.8	210	7.3	16	5.7	445	12	13	4.5	3.6	9.3	47
25	3.6	207	3.6	16	6.2	440	35	14	4.5	3.6	9.6	47
26	63	205	16	16	8.4	444	76	13	4.3	3.6	9.0	33
27	89	205	16	62	6.0	445	164	13	4.0	3.3	9.0	13
28	89	207	16	81	32	228	129	13	4.0	3.3	9.0	36
29	89	218	16	80	---	117	87	13	3.3	3.3	8.7	47
30	91	222	16	34	---	119	87	13	2.6	3.3	8.7	18
31	91	---	16	6.5	---	119	---	13	---	3.3	8.7	---
TOTAL	630.1	4320.7	4537.9	679.5	225.6	7258.0	7327.3	2459	120.7	118.3	1882.0	1073.4
MEAN	20.3	144	146	21.9	8.06	234	244	79.3	4.02	3.82	60.7	35.8
MAX	91	323	430	81	34	458	615	463	9.0	4.8	248	108
MIN	3.6	3.8	3.6	6.5	4.0	1.9	2.2	13	1.8	2.9	4.0	8.4
(+)	2.38	2.27	2.36	2.35	2.45	2.40	5.77	1.78	2.64	2.49	2.44	2.28

CAL YR 1976 TOTAL 40387.97 MEAN 110 MAX 550 MIN .07 (+) 2.25
WTR YR 1977 TOTAL 30632.50 MEAN 83.9 MAX 615 MIN 1.8 (+) 2.63

+ Diversion for water supply for U.S. Fish Hatchery; furnished by Senecaville National Fish Hatchery.

03141500 SENECA FORK BELOW SENECAVILLE DAM, NEAR SENECAVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
23...	1130	440	385	8.2	7.5	11.3	94	1.9	180	57	51	12
JUL												
14...	1300	4.7	380	7.6	25.0	8.2	98	1.9	170	46	50	12

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
23...	6.8	1.9	146	0	120	1.5	61	8.1	.1	2.3	215	.27
JUL												
14...	6.9	2.1	156	0	128	6.3	58	6.7	.1	3.3	217	.04

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
23...	.01	.05	.03	1	<10	2	10	5	0	.0	100	--
JUL												
14...	.01	.12	.04	4	10	0	30	3	890	.0	30	7.6

03142000 WILLS CREEK AT CAMBRIDGE, OH

LOCATION.--Lat 40°00'52", long 81°35'14", Guernsey County, Hydrologic Unit 05040005, on left bank at upstream side of bridge on Campbell Avenue in Cambridge, 0.9 mi (1.4 km) downstream from Leatherwood Creek.

DRAINAGE AREA.--406 mi^2 (1,052 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1926 to September 1928, May 1937 to current year.

REVISED RECORDS.--WSP 853: 1929(M). WSP 893: 1928. WSP 973: 1942.

GAGE.--Water-stage recorder. Datum of gage is 772.34 ft (235.409 m) above mean sea level. Prior to Oct. 6, 1927, nonrecording gage at site 1.5 mi (2.4 km) downstream at different datum. Oct. 6, 1927, to Sept. 30, 1928, and May 22, 1937, to Oct. 18, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Senecaville Lake on Seneca Fork, 22 mi (35 km) upstream, beginning in 1937 (see station 03141000). Water is diverted 2.7 mi (4.3 km) upstream from station for municipal supply of city of Cambridge; diversion not included in figures of daily discharge.

AVERAGE DISCHARGE.--42 years, 439 ft^3/s (12.43 m^3/s) (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 8,500 ft^3/s (241 m^3/s) June 6 or 7, 1963; maximum gage height, 22.55 ft (6.873 m) June 6, 1963 (backwater from tributaries); minimum daily discharge, 0.7 ft^3/s (0.020 m^3/s) Oct. 6, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 8, 1935, reached a stage of 25.4 ft (7.74 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,320 ft^3/s (94.0 m^3/s) Apr. 4, gage height, 15.48 ft (4.718 m); minimum daily, 7.8 ft^3/s (0.22 m^3/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	553	267	58	123	342	462	281	36	90	238	33
2	33	312	263	56	89	306	905	253	30	144	116	42
3	32	213	263	54	39	269	2640	300	26	72	74	77
4	26	185	298	52	48	420	3350	314	28	175	55	85
5	15	170	267	50	46	977	3180	851	15	405	46	58
6	16	166	259	50	43	635	2780	660	16	161	41	41
7	15	160	350	48	41	418	2040	1210	17	76	188	28
8	17	150	520	48	40	460	1210	1170	23	70	1030	27
9	47	109	620	48	44	598	981	568	72	175	1130	24
10	141	72	570	48	46	592	918	605	114	318	592	34
11	115	70	562	48	63	572	867	646	77	109	462	33
12	51	69	589	48	114	336	820	598	47	87	491	27
13	33	64	467	48	346	844	785	399	35	132	613	14
14	26	61	296	48	1000	1440	762	251	26	115	365	18
15	25	55	166	48	818	1010	753	166	26	63	269	26
16	29	223	114	48	513	820	716	149	27	50	354	79
17	27	356	128	48	348	716	666	128	37	40	226	212
18	23	359	137	48	249	1020	633	112	32	33	194	160
19	15	298	126	48	217	1840	271	89	26	20	240	128
20	20	263	132	48	212	1780	129	90	20	19	175	115
21	33	259	173	48	217	940	118	92	9.8	25	104	112
22	67	255	150	48	204	840	112	80	9.3	336	97	83
23	53	244	131	48	695	968	126	70	8.8	437	79	67
24	57	242	119	48	1620	833	156	59	7.8	114	57	70
25	166	240	90	48	2140	746	160	57	19	61	58	69
26	165	242	72	52	1950	695	149	56	69	97	61	67
27	138	257	70	56	909	666	181	51	69	83	51	59
28	138	259	67	70	467	716	300	60	43	59	46	35
29	129	261	65	122	---	770	622	57	140	128	44	42
30	125	265	62	126	---	524	460	55	107	677	38	64
31	245	---	60	126	---	526	---	47	---	691	32	---
TOTAL	2048	6432	7453	1784	12641	23619	27252	9524	1212.7	5062	7566	1930
MEAN	66.1	214	240	57.5	451	762	908	307	40.4	163	244	64.3
MAX	245	553	620	126	2140	1840	3350	1210	140	691	1130	212
MIN	15	55	60	48	39	269	112	47	7.8	19	32	14
(+)	5.49	5.63	5.50	5.87	6.39	5.75	5.37	5.99	6.25	6.63	6.48	6.39

CAL YR 1976 TOTAL 129836.8 MEAN 355 MAX 3010 MIN 9.8 (+) 5.33
WTR YR 1977 TOTAL 106523.7 MEAN 292 MAX 3350 MIN 7.8 (+) 5.98

+ Diversion in cubic feet per second; furnished by city of Cambridge.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1975, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAR												
23...	1645	1010	435	7.8	7.0	10.9	89	1.9	200	100	55	16
JUL												
21...	1100	8.0	900	8.0	26.0	7.1	90	4.5	360	210	91	31

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
23...	14	2.1	124	0	102	3.1	110	16	.1	4.6	279	.37
JUL												
21...	40	3.8	174	0	143	2.8	250	34	.3	7.2	544	.43

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
23...	.01	.04	.07	1	10	13	30	6	110	.0	20	--
JUL												
21...	.01	.11	.14	2	20	39	10	14	500	.0	70	5.0

03142295 SALT FORK BELOW SALT FORK DAM, NEAR CAMBRIDGE, OH

LOCATION.--Lat 40°06'15", long 81°33'15", T.3 N., R.3 W., Guernsey County, Hydrologic Unit 05040005, at outlet works near left end of Salt Fork Dam, 0.8 mi (1.3 km) upstream from the mouth and 5.0 mi (8.0 km) north of Cambridge.

DRAINAGE AREA.--159 mi² (412 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

REVISED RECORDS.--WDR OH-76-1: 1975.

GAGE.--Water-stage recorder and morning-glory spillway control. Datum of gage is 700.00 ft (213.360 m) above mean sea level; gage readings have been reduced to elevations above mean sea level. Same gage and elevations as Salt Fork Reservoir (station 03142290).

REMARKS.--Records good except those for the period Jan. 11 to Mar. 10 and those below 50 ft³/s (1.416 m³/s), which are fair. Flow completely regulated by Salt Fork Reservoir (see station 03142290).

AVERAGE DISCHARGE.--7 years, 172 ft³/s (4.871 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,830 ft³/s (51.8 m³/s) Feb. 25, 1975, elevation, 805.46 ft (245.504 m) from rating curve extended above 650 ft³/s (18.4 m³/s); no flow at times in 1970-71, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,330 ft³/s (37.7 m³/s) Apr. 5, elevation, 804.66 ft (245.260 m); minimum daily, 9.6 ft³/s (0.27 m³/s) Oct. 4-8, 18, 19, Sept. 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	69	24	42	36	400	242	117	33	33	24	24
2	9.7	69	24	41	36	420	294	135	24	33	24	16
3	9.7	69	24	40	36	280	611	135	24	33	16	24
4	9.6	69	24	39	38	280	1050	154	24	44	16	24
5	9.6	69	24	38	37	290	1050	174	24	56	16	16
6	9.6	69	24	37	36	300	1050	174	24	56	16	16
7	9.6	56	33	37	35	270	612	218	16	44	24	16
8	9.6	56	44	37	36	230	610	174	16	44	33	16
9	9.7	56	56	37	35	200	610	174	24	44	44	16
10	16	56	56	37	32	174	610	154	24	44	44	9.7
11	16	44	56	36	33	174	470	154	24	44	44	9.6
12	16	44	56	36	36	174	351	135	24	44	56	9.6
13	16	44	56	36	46	242	350	135	24	44	56	9.6
14	16	44	56	35	56	294	350	117	24	44	44	9.6
15	16	44	56	35	78	350	294	117	24	44	56	9.6
16	16	44	56	35	78	294	242	117	24	44	56	9.7
17	9.7	33	44	35	76	294	242	100	24	33	56	16
18	9.6	33	44	34	74	294	218	100	24	33	56	16
19	9.6	33	44	33	85	351	174	84	24	33	44	16
20	9.7	33	56	32	100	470	174	84	24	24	44	24
21	9.7	33	44	31	100	470	174	69	16	24	44	24
22	9.7	24	56	30	110	350	154	56	16	33	33	24
23	16	24	44	30	110	350	135	56	16	33	33	24
24	24	24	56	31	170	350	135	56	16	33	33	24
25	33	24	56	34	280	350	117	56	16	24	33	24
26	33	24	54	35	520	294	100	56	16	24	24	24
27	33	33	52	35	510	294	100	56	16	24	24	16
28	33	24	50	35	500	242	100	44	24	16	24	16
29	33	24	48	36	---	242	117	44	24	16	24	16
30	33	24	46	36	---	242	135	33	24	24	24	16
31	56	---	44	36	---	242	---	33	---	24	24	---
TOTAL	550.8	1292	1407	1101	3319	9207	10871	3311	657	1093	1089	515.4
MEAN	17.8	43.1	45.4	35.5	119	297	362	107	21.9	35.3	35.1	17.2
MAX	56	69	56	42	520	470	1050	218	33	56	56	24
MIN	9.6	24	24	30	32	174	100	33	16	16	16	9.6

CAL YR 1976 TOTAL 47654.8 MEAN 130 MAX 854 MIN 9.0
WTR YR 1977 TOTAL 34413.2 MEAN 94.3 MAX 1050 MIN 9.6

03142295 SALT FORK BELOW SALT FORK DAM, NEAR CAMBRIDGE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1345	441	305	7.7	7.0	10.7	88	1.1	120	61	34	9.3
JUL 14...	1000	44	255	7.6	25.5	8.0	96	4.7	110	58	30	7.8

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	11	2.5	76	0	62	2.4	61	16	.1	4.7	176	.40
JUL 14...	6.9	2.2	60	0	49	2.4	50	13	.1	4.0	146	.00

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.01	.16	.01	0	20	3	30	4	230	.0	40	--
JUL 14...	.00	.06	.02	2	10	4	50	3	20	.0	40	5.8

03143500 WILLS CREEK BELOW WILLS CREEK DAM, AT WILLS CREEK, OH

LOCATION.--Lat 40°09'34", long 81°50'51", in sec. 22, T.4 N., R.6 W., Coshocton County, Hydrologic Unit 05040005, on left bank 1,200 ft (366 m) downstream from Wills Creek Dam, 1.3 mi (2.1 km) southeast of town of Wills Creek, 2.7 mi (4.3 km) southeast of Conesville, and 6.2 mi (10.0 km) upstream from mouth.

DRAINAGE AREA.--842 mi² (2,181 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1939, published as Wills Creek at Wills Creek.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.00 ft (218.542 m) above mean sea level, adjustment of 1912. Prior to Feb. 18, 1939, nonrecording gage and Feb. 18, 1939, to Sept. 30, 1949, water-stage recorder, at site 1,500 ft (457 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Senecaville Lake on Seneca Fork, 80 mi (129 km) upstream, Salt Fork Reservoir, 43 mi (69 km) upstream, and Wills Creek Lake, 0.2 mi (0.3 km) upstream (see stations 03141000, 03142290, and 03143000).

AVERAGE DISCHARGE.--39 years, 902 ft³/s (25.54 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,930 ft³/s (196 m³/s) Mar. 7, 1940, gage height, 17.40 ft (5.304 m); maximum gage height, 17.50 ft (5.334 m) Mar. 22, 1964 (backwater from Muskingum River); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Aug. 10, Oct. 27-29, 1948, Jan. 28, 1952, July 6-9, 1969, Apr. 3, 1970, Feb. 25, 1975, Feb. 19, 1976, when gates at Wills Creek Lake were closed.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a discharge of 22,300 ft³/s (632 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,570 ft³/s (158 m³/s) Apr. 11, gage height, 15.95 ft (4.862 m); minimum daily, 64 ft³/s (1.81 m³/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	460	354	166	174	2240	1160	1010	123	234	881	118
2	106	656	353	152	183	1440	1440	831	117	259	813	115
3	98	711	341	150	166	1120	3610	709	108	260	517	110
4	90	589	336	144	145	1010	3110	699	98	500	334	107
5	84	479	345	138	128	1150	1920	905	93	1170	235	139
6	80	402	355	132	116	1580	2180	1360	97	1070	176	158
7	76	357	419	130	111	1550	2840	1530	93	733	147	147
8	70	329	530	132	109	1230	3540	1680	89	514	201	127
9	71	306	867	128	108	1040	4620	1850	115	376	699	107
10	79	288	1100	137	111	1060	4750	1420	122	307	1460	90
11	93	256	967	138	112	1070	5140	1080	134	368	1320	79
12	150	216	862	138	124	1060	5280	1030	154	419	1060	70
13	187	187	833	135	168	1460	5180	984	158	363	1030	66
14	170	170	784	132	304	2170	4830	861	146	295	1040	79
15	138	158	651	127	698	2640	3760	697	130	276	975	78
16	115	148	522	125	1120	2410	1990	554	113	253	871	97
17	97	143	397	135	1080	1940	1380	456	100	211	711	116
18	85	215	318	132	820	1910	1210	391	92	175	608	151
19	78	344	286	132	646	2730	1120	348	92	147	489	237
20	80	414	282	134	553	3260	936	310	87	128	418	316
21	84	403	281	132	498	3460	672	274	83	118	391	363
22	85	377	279	132	482	3030	528	249	77	136	340	326
23	86	360	288	132	632	2400	475	231	71	179	281	276
24	121	348	271	134	1420	2170	455	216	64	503	239	228
25	181	338	251	132	3060	1950	446	202	70	516	206	192
26	248	336	245	124	3910	1690	460	185	79	345	175	170
27	333	339	228	127	3950	1480	449	170	74	236	152	156
28	350	345	205	128	3370	1390	455	158	88	186	139	145
29	326	355	192	139	---	1450	614	147	137	166	133	135
30	308	358	194	133	---	1540	890	139	177	151	133	121
31	345	---	170	148	---	1360	---	132	---	329	124	---
TOTAL	4519	10387	13506	4198	24298	55990	65440	20808	3181	10923	16298	4619
MEAN	146	346	436	135	868	1806	2181	671	106	352	526	154
MAX	350	711	1100	166	3950	3460	5280	1850	177	1170	1460	363
MIN	70	143	170	124	108	1010	446	132	64	118	124	66

CAL YR 1976 TOTAL 293946.0 MEAN 803 MAX 4930 MIN 1.0
WTR YR 1977 TOTAL 234167.0 MEAN 642 MAX 5280 MIN 64

03143500 WILLS CREEK BELOW WILLS CREEK DAM, AT WILLS CREEK, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 22...	1115	2950	338	7.4	7.0	10.4	85	1.6	140	84	38	11
JUL 20...	1800	121	670	7.6	26.0	6.8	83	2.2	270	170	69	23

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 22...	11	2.7	68	0	56	4.3	81	16	.1	6.4	200	.50
JUL 20...	24	3.7	114	0	94	4.6	180	32	.2	6.8	396	.61

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 22...	.02	.08	.10	1	10	4	30	7	150	.0	80	--
JUL 20...	.04	.24	.07	1	10	7	10	6	700	.0	50	5.4

03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OH

LOCATION.--Lat 40°07'57", long 82°08'53", in NW 1/4 sec. 13, T.3 N., R.9 W., Muskingum County, Hydrologic Unit 05040004, on right bank 2.0 mi (3.2 km) northwest of Frazeysburg, 2.0 mi (3.2 km) downstream from Fivemile Run, and 2.5 mi (4.0 km) upstream from Black Run.

DRAINAGE AREA.--140 mi^2 (363 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1936 to current year.

REVISED RECORDS.--WSP 1113: 1937(M). WSP 1555: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 748.12 ft (228.027 m) above mean sea level, adjustment of 1912. Prior to Oct. 31, 1936, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--41 years, 147 ft^3/s (4.163 m^3/s), 14.26 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s (388 m^3/s) Jan. 22, 1959, gage height, 13.15 ft (4.008 m), from rating curve extended above 7,700 ft^3/s (218 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.0 ft^3/s (0.057 m^3/s) Oct. 3, 1963, gage height, 0.94 ft (0.287 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45.3 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	1400	2090	59.2	6.14	1.871	Mar. 18	2200	1840	52.1	5.68	1.731
Mar. 13	1415	2000	56.6	5.91	1.801	Apr. 4	0715	*2900	82.1	*7.26	2.213

Minimum discharge, 7.0 ft^3/s (0.20 m^3/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	154	29	30	30	219	152	107	21	48	14	10
2	23	89	28	30	30	171	791	105	19	43	12	12
3	21	75	36	30	30	150	2040	107	18	26	10	21
4	19	67	23	30	30	228	769	105	17	30	9.8	16
5	17	59	23	30	30	349	1330	114	17	55	9.4	11
6	18	53	22	30	30	236	770	153	18	36	9.0	10
7	20	51	51	30	30	196	475	281	18	24	14	9.7
8	21	48	58	30	30	163	351	167	18	26	27	9.0
9	22	44	52	30	30	148	260	116	58	21	15	8.9
10	29	47	46	30	30	134	217	96	39	18	19	8.6
11	29	46	51	30	31	120	185	86	25	16	21	7.9
12	23	42	51	30	32	148	154	77	24	34	34	7.8
13	19	38	51	30	32	1430	135	71	22	68	23	8.5
14	19	35	59	30	348	724	124	67	20	27	19	116
15	20	36	39	30	263	438	111	62	19	18	38	52
16	19	33	40	30	191	319	98	56	17	15	40	101
17	18	31	39	30	158	241	92	52	16	18	28	97
18	18	36	43	30	131	1020	87	49	15	15	28	58
19	18	34	41	30	115	992	84	47	14	12	20	86
20	21	34	47	30	112	596	80	43	16	11	15	144
21	38	31	56	30	96	435	78	40	14	12	14	84
22	35	31	70	30	107	433	73	36	12	21	16	55
23	25	29	39	30	388	393	87	33	11	14	16	43
24	60	39	33	30	1350	309	95	33	11	11	14	36
25	94	30	30	30	1060	254	107	34	59	11	12	37
26	59	34	34	30	598	216	92	32	62	15	11	36
27	44	43	38	30	405	189	81	28	31	9.4	10	30
28	36	41	39	30	287	222	88	27	37	8.6	9.5	28
29	33	38	38	30	---	260	196	26	48	9.4	9.3	23
30	31	31	32	30	---	201	130	23	28	27	9.2	21
31	127	---	31	30	---	176	---	23	---	18	10	---
TOTAL	1001	1399	1269	930	6004	11110	9332	2296	744	717.4	536.2	1187.4
MEAN	32.3	46.6	40.9	30.0	214	358	311	74.1	24.8	23.1	17.3	39.6
MAX	127	154	70	30	1350	1430	2040	281	62	68	40	144
MIN	17	29	22	30	30	120	73	23	11	8.6	9.0	7.8
CFSM	.23	.33	.29	.21	1.53	2.56	2.22	.53	.18	.17	.12	.28
IN.	.27	.37	.34	.25	1.60	2.95	2.48	.61	.20	.19	.14	.32

CAL YR 1976 TOTAL 50596.0 MEAN 138 MAX 2570 MIN 17 CFSM .99 IN 13.44
WTR YR 1977 TOTAL 36526.0 MEAN 100 MAX 2040 MIN 7.8 CFSM .71 IN 9.71

03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 15...	1530	408	260	7.3	10.0	10.4	92	1.3	85	54	22	7.3
JUN 22...	1600	12	390	7.7	21.5	9.3	100	1.8	140	38	35	12

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 15...	12	2.5	38	0	31	3.0	24	35	.1	8.3	130	1.5
JUN 22...	22	2.7	120	0	98	3.8	18	55	.0	5.7	210	.17

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 15...	.01	.03	.03	2	10	9	40	7	70	.0	100	2.8
JUN 22...	.00	.05	.01	2	<10	2	40	5	90	.0	50	6.0

03144500 MUSKINGUM RIVER AT DRESDEN, OH

LOCATION.--Lat 40°07'13", long 81°59'59", Muskingum County, Hydrologic Unit 05040004, on left bank 70 ft (21 m) downstream from bridge on State Highway 208, 0.5 mi (0.8 km) east of Dresden, and 0.5 mi (0.8 km) downstream from Wakatomika Creek.

DRAINAGE AREA.--5,993 mi^2 (15,522 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 728: 1927(M). WSP 803: 1935. WSP 1385: 1922-23, 1928(M), 1929, 1930(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 693.15 ft (211.272 m) above mean sea level, adjustment of 1912. Prior to Aug. 24, 1925, nonrecording gage at about same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by 16 flood-control reservoirs at points 15 mi (24 km) to 105 mi (169 km) upstream.

AVERAGE DISCHARGE.--56 years, 6,164 ft^3/s (174.6 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft^3/s (2,830 m^3/s) Aug. 9, 1935, gage height, 31.6 ft (9.63 m); minimum daily, 335 ft^3/s (9.49 m^3/s) June 25, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 46.0 ft (14.02 m), present site and datum, from floodmark, discharge, 228,000 ft^3/s (6,460 m^3/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,700 ft^3/s (728 m^3/s) Apr. 4, gage height, 16.39 ft (4.996 m); minimum daily, 1,060 ft^3/s (30.0 m^3/s) Jan. 31, Feb. 2, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2090	3640	2530	1200	1130	18200	8750	6660	1650	2720	3200	1590
2	1950	4350	2610	1200	1160	14600	9470	5990	1680	4120	3200	1520
3	1760	4180	2400	1200	1150	12600	21500	5610	1630	3600	2580	1550
4	1610	3580	2300	1200	1150	11100	25000	5760	1580	3500	2150	2080
5	1480	3130	2450	1200	1130	11700	24800	6620	1510	6290	1890	2300
6	1410	2780	2470	1200	1110	12400	23600	8780	1760	8390	1720	1850
7	1450	2540	2900	1200	1120	10600	24200	10300	2590	6620	2180	1680
8	1470	2340	3340	1200	1080	8560	24100	9490	2640	4750	3890	1720
9	1490	2190	4110	1200	1060	7360	23900	8500	2510	4890	5820	1560
10	1590	2090	4330	1100	1080	6800	23900	7360	2780	3940	6590	1440
11	1860	2050	4070	1100	1160	6290	23500	6680	3200	3280	5880	1360
12	2050	1970	3870	1100	1310	5950	23700	5990	2720	3130	4960	1310
13	2000	1880	3790	1100	1680	11900	22600	5280	2330	3220	4570	1260
14	1850	1780	3580	1100	2780	18900	21100	4830	2100	3280	4180	1820
15	1710	1700	3390	1100	3940	19400	18600	4380	1950	2650	4140	3060
16	1550	1740	3080	1100	4760	17000	14600	3920	1810	2310	4210	3790
17	1450	2250	2620	1100	4600	14400	10200	3560	1670	2240	3920	3870
18	1370	2300	2310	1100	3840	13900	8100	3310	1630	2690	3990	4890
19	1320	2300	2240	1100	3530	19700	7240	3110	3390	2650	3560	5280
20	1310	2280	2310	1100	3370	20800	6590	3000	3250	2450	3060	8750
21	1400	2270	2390	1100	3060	20400	6030	2850	2880	2130	2700	8370
22	1510	2210	2430	1100	2850	18600	5410	2650	2310	2950	2500	7380
23	1580	2160	2280	1100	3730	18100	5170	2450	1970	7140	2580	6310
24	1740	2090	1700	1100	8990	17600	5370	2370	1790	6430	3050	4620
25	2220	2020	1500	1100	19400	16700	6290	2370	1790	5860	2510	3890
26	2980	2240	1400	1100	22800	14900	6680	2240	1880	4870	2130	3840
27	3250	2530	1400	1100	22600	12900	6350	2100	1930	4110	1950	4010
28	2880	2800	1300	1100	20600	11000	6010	2000	1780	3310	1780	3450
29	2510	2950	1300	1100	---	10400	6550	1900	1790	2730	1680	2850
30	2270	2820	1200	1100	---	11200	6600	1810	2130	2540	1630	2480
31	2480	---	1200	1060	---	10200	---	1720	---	2700	1610	---
TOTAL	57590	75160	78800	34960	146170	424160	426110	143590	64630	121490	99810	99880
MEAN	1858	2505	2542	1128	5220	13680	14200	4632	2154	3919	3220	3329
MAX	3250	4350	4330	1200	22800	20800	25000	10300	3390	8390	6590	8750
MIN	1310	1700	1200	1060	1060	5950	5170	1720	1510	2130	1610	1260

CAL YR 1976 TOTAL 2160010 MEAN 5902 MAX 24000 MIN 1200
WTR YR 1977 TOTAL 1772350 MEAN 4856 MAX 25000 MIN 1060

03144500 MUSKINGUM RIVER AT DRESDEN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1969 to current year.

REMARKS.--Water temperatures collected at this site 1952-61, 1963-74; sediment data collected at this site 1952-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 21...	1345	19700	410	7.7	7.0	11.0	90	3.6	150	80	41	11
JUL 13...	1000	3160	640	7.7	25.0	7.6	90	3.7	270	150	76	19

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 21...	21	3.5	83	0	68	2.6	68	37	.1	6.9	230	2.4
JUL 13...	36	4.8	140	0	115	4.5	120	75	.3	7.2	407	1.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 21...	.03	.10	.26	2	10	9	60	9	110	.0	50	--
JUL 13...	.01	.03	.28	2	30	18	20	19	60	.0	90	7.1

03145000 SOUTH FORK LICKING RIVER NEAR HEBRON, OH

LOCATION.--Lat 39°59'19", long 82°28'30", in NW 1/4 sec. 3, T.1 N., R.12 W., Licking County, Hydrologic Unit 05040006, on left bank at upstream side of bridge on county road, 800 ft (244 m) downstream from Beaver Run, 2.3 mi (3.7 km) north of Hebron, and 2.5 mi (4.0 km) upstream from Ramp Creek.

DRAINAGE AREA.--133 mi² (344 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1948, July 1968 to current year.

REVISED RECORDS.--WSP 923: 1940. WSP 1033: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 856.08 ft (260.933 m) above mean sea level. Prior to Sept. 13, 1974 nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter periods or no gage height record, which are poor. Occasional regulation by Buckeye Lake, capacity, 27,300 acre-ft (33.7 hm³), on unnamed tributary 5.6 mi (9.0 km) upstream from station. Occasional diversion from Buckeye Lake into Jonathan Creek which bypasses station.

AVERAGE DISCHARGE.--18 years, 140 ft³/s (3.965 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,120 ft³/s (117 m³/s) Mar. 6, 1945, gage height, 12.1 ft (3.69 m), from flood marks; no flow Aug. 22, 1942.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959, reached a stage of 12.4 ft (3.78 m) present datum, from floodmarks; discharge 5,880 ft³/s (167 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft³/s (34.6 m³/s) Apr. 2, gage height, 8.67 ft (2.643 m); minimum daily, 6.7 ft³/s (0.190 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	411	29	17	14	180	101	62	17	129	11	13
2	9.1	159	26	17	14	150	618	55	18	95	9.6	26
3	8.6	100	36	17	14	130	1190	53	23	33	8.6	85
4	7.1	75	22	17	14	200	741	185	18	88	8.6	61
5	6.7	60	22	17	14	400	1090	323	17	67	8.1	31
6	9.1	49	21	17	14	250	753	300	18	35	8.1	25
7	13	45	66	17	14	150	485	397	15	23	303	33
8	11	57	99	17	14	110	388	288	14	42	558	24
9	15	360	45	17	14	88	126	185	175	34	189	19
10	22	363	33	16	14	69	104	52	96	22	85	16
11	26	355	29	16	14	66	90	44	38	17	53	14
12	18	349	26	16	14	97	77	38	30	57	188	13
13	15	344	24	16	14	937	73	36	24	85	123	15
14	13	338	22	16	150	670	66	33	21	38	80	165
15	16	334	21	16	100	259	60	33	18	22	108	108
16	11	334	20	16	90	165	53	31	18	14	77	322
17	31	410	20	16	105	113	49	29	19	13	44	333
18	8.6	413	19	16	108	413	47	28	95	13	31	127
19	7.1	402	19	15	92	526	45	27	41	14	25	219
20	9.6	395	19	15	80	248	42	26	25	22	20	309
21	15	388	19	15	72	200	41	25	18	39	18	124
22	17	382	19	15	76	253	39	23	16	527	19	73
23	20	373	18	15	250	270	42	28	13	117	18	55
24	59	365	18	15	650	154	47	46	11	47	17	44
25	277	195	18	15	450	113	62	37	10	33	15	38
26	157	18	18	15	350	96	52	28	11	26	14	34
27	85	22	18	15	260	87	46	23	10	21	15	30
28	57	45	18	15	215	119	53	20	14	16	14	26
29	45	46	18	15	---	182	117	19	62	14	13	23
30	38	35	17	15	---	133	87	18	29	13	14	22
31	228	---	17	14	---	113	---	18	---	12	14	---
TOTAL	1264.9	7222	816	491	3230	6941	6784	2510	934	1728	2109.0	2428
MEAN	40.8	241	26.3	15.8	115	224	226	81.0	31.1	55.7	68.0	80.9
MAX	277	413	99	17	650	937	1190	397	175	527	558	333
MIN	6.7	18	17	14	14	66	39	18	10	12	8.1	13

CAL YR 1976 TOTAL 46361.5 MEAN 127 MAX 1280 MIN 5.2
WTR YR 1977 TOTAL 36457.9 MEAN 99.9 MAX 1190 MIN 6.7

Note: No gage height record Dec. 13 to Mar. 10.

03145000 SOUTH FORK LICKING RIVER NEAR HEBRON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
10...	1630	76	595	7.9	10.0	10.6	94	2.3	260	83	66	22
JUL												
07...	1340	21	560	7.7	27.5	5.7	71	3.2	210	50	58	17

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
10...	18	2.3	210	0	172	4.2	61	35	.2	6.0	314	2.5
JUL												
07...	24	3.5	201	0	165	6.4	47	40	.2	8.3	297	2.1

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
10...	.03	.24	.11	2	10	13	30	12	90	.0	10	6.1
JUL												
07...	.07	.34	.29	4	<10	13	10	14	60	.0	20	6.4

03146000 NORTH FORK LICKING RIVER AT UTICA, OH

LOCATION.--Lat 40°13'41", long 82°27'06", in T.4 N., R.12 W., Licking County, Hydrologic Unit 05040006, on left bank at upstream side of bridge on State Highway 13 at south edge of Utica, 0.2 mi (0.3 km) downstream from unnamed right bank tributary, and 2.0 mi (3.2 km) upstream from Lake Fork.

DRAINAGE AREA.--116 mi² (300 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1948, October 1969 to current year.

REVISED RECORDS.--WRD Ohio 1970: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 934 ft (285 m) from topographic map. Prior to September 30, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--17 years, 130 ft³/s (3.682 m³/s), 15.22 in/yr (387 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,040 ft³/s (199 m³/s) June 18, 1973, gage height, 13.04 ft (3.975 m); minimum observed, 0.6 ft³/s (0.017 m³/s) Aug. 13, Oct. 2, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959 reached a stage of 15.8 ft (4.82 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximums (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Feb. 24	2230	3330	94.3	8.64	2.633	Apr. 2	2400	*3930	111	*9.38	2.859
Mar. 13	0730	3400	96.3	8.73	2.661						

Minimum discharge, 1.8 ft³/s (0.051 m³/s) July 27-29, Aug. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	261	27	13	11	180	75	72	9.6	63	3.9	3.5
2	14	131	26	13	10	135	1550	62	11	53	3.5	3.5
3	13	92	51	13	10	120	2040	62	9.6	24	2.6	3.9
4	12	71	21	12	10	448	597	113	7.7	58	2.2	3.0
5	10	57	20	12	10	567	1360	241	7.1	219	1.8	2.6
6	11	48	18	12	10	238	464	131	7.1	63	1.8	2.6
7	12	43	39	12	10	164	255	97	6.6	29	2.6	3.0
8	12	38	64	12	10	122	182	71	7.7	19	3.9	3.5
9	15	35	50	12	10	109	137	53	33	14	4.9	3.9
10	20	34	33	12	10	99	115	45	41	46	5.5	3.9
11	29	32	30	12	10	84	97	39	20	24	18	3.9
12	22	29	28	12	10	178	81	34	14	15	19	3.0
13	18	27	27	12	10	2230	71	30	12	18	15	3.0
14	17	25	25	12	92	597	64	28	10	18	9.6	16
15	17	24	23	12	171	291	59	25	8.3	9.6	9.0	18
16	16	24	22	12	217	189	52	23	7.7	6.6	17	29
17	16	22	21	12	244	135	48	20	6.6	4.9	50	54
18	15	21	20	11	241	1160	45	18	5.5	3.9	57	32
19	14	22	19	11	236	582	44	18	5.5	3.5	23	47
20	16	21	18	11	230	335	41	16	4.4	3.0	12	64
21	19	20	18	11	225	255	38	14	3.5	4.0	9.0	32
22	20	20	17	11	222	348	36	13	3.0	9.0	9.0	20
23	20	19	16	11	309	288	42	12	3.0	5.5	8.3	15
24	38	18	16	11	2390	178	78	12	2.6	3.9	6.6	12
25	196	18	15	11	1880	133	87	30	11	3.5	5.5	11
26	120	19	15	11	801	113	63	16	16	2.6	3.9	10
27	72	30	15	11	456	97	53	12	8.3	2.2	3.5	15
28	53	47	14	11	273	126	72	10	10	1.8	3.5	13
29	44	41	14	11	---	178	222	9.0	18	2.2	7.7	11
30	39	30	14	11	---	122	106	8.3	16	4.9	7.7	9.0
31	282	---	13	11	---	92	---	9.0	---	4.4	4.9	---
TOTAL	1219	1319	749	361	8118	9893	8174	1343.3	325.8	738.5	331.9	451.3
MEAN	39.3	44.0	24.2	11.6	290	319	272	43.3	10.9	23.8	10.7	15.0
MAX	282	261	64	13	2390	2230	2040	241	41	219	57	64
MIN	10	18	13	11	10	84	36	8.3	2.6	1.8	1.8	2.6
CFSM	.34	.38	.21	.10	2.50	2.75	2.35	.37	.09	.21	.09	.13
IN.	.39	.42	.24	.12	2.60	3.17	2.62	.43	.10	.24	.11	.14

CAL YR 1976 TOTAL 42668.0 MEAN 117 MAX 3130 MIN 6.6 CFSM 1.01 IN 13.68
WTR YR 1977 TOTAL 33023.8 MEAN 90.5 MAX 2390 MIN 1.8 CFSM .78 IN 10.59

03136000 NORTH FORK LICKING RIVER AT UTICA, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 10...	1230	99	525	8.0	9.0	10.7	92	1.1	250	71	66	21
JUL 07...	1015	29	510	7.0	26.0	6.3	77	2.0	220	78	59	17

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 10...	7.8	2.0	220	0	180	3.5	53	17	.2	5.9	281	2.6
JUL 07...	7.4	3.2	170	0	139	4.3	45	18	.2	9.3	243	8.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 10...	.01	.03	.04	1	10	6	40	7	30	.0	10	7.9
JUL 07...	.09	.07	.11	3	10	8	10	19	20	.0	30	4.7

03146500 LICKING RIVER NEAR NEWARK, OH

LOCATION.--Lat 40°03'33", long 82°20'23", in SW 1/4 T.2 N., R.11 W., Licking County, Hydrologic Unit 05040006, on right bank at downstream side of Stadden Bridge, 1.0 mi (1.6 km) downstream from Shawnee Run, 1.5 mi (2.4 km) upstream from Equality Run, and 3.5 mi (5.6 km) east of Newark.

DRAINAGE AREA.--537 mi² (1,391 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 973: 1940(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 779.02 ft (237.445 m) above mean sea level. Prior to May 9, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Buckeye Lake, capacity, 27,300 acre-ft (33.7 hm³), on South Fork 15.2 mi (24.5 km) upstream.

AVERAGE DISCHARGE.--38 years, 560 ft³/s (15.86 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft³/s (1,270 m³/s) Jan. 21, 1959, gage height, 20.3 ft (6.19 m) (from high-water mark), from rating curve extended above 24,000 ft³/s (680 m³/s) on basis of flood-routing studies from station at Toboso; minimum daily, 28 ft³/s (0.79 m³/s) Sept. 27, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,730 ft³/s (219 m³/s) Apr. 3, (base, 6,500 ft³/s, 184 m³/s), gage height, 10.89 ft (3.319 m); minimum daily, 56 ft³/s (1.6 m³/s) Feb. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	1140	146	72	60	698	459	400	127	352	107	98
2	106	616	139	72	59	577	2930	368	120	367	103	100
3	98	474	114	71	58	514	5630	395	123	192	101	185
4	93	389	120	70	58	926	2480	529	120	345	101	174
5	85	328	109	69	57	1680	4020	976	117	692	99	123
6	95	286	114	69	57	864	2400	1040	120	335	100	110
7	93	256	227	68	57	704	1540	1130	117	205	651	113
8	88	286	240	68	57	577	1240	760	136	268	997	103
9	106	529	200	68	57	514	811	583	611	200	393	97
10	189	524	185	67	56	417	692	363	428	187	239	90
11	136	514	165	67	56	368	611	309	231	188	198	87
12	130	504	158	67	56	428	540	273	180	361	474	86
13	111	489	135	66	56	4800	484	247	157	821	357	124
14	98	479	125	66	674	3520	454	227	146	298	288	401
15	93	474	118	65	342	1140	417	212	136	192	353	309
16	88	484	110	65	378	919	373	201	127	157	337	681
17	98	545	108	65	440	704	343	188	141	149	218	862
18	98	540	105	64	449	2540	323	180	223	134	225	433
19	78	529	100	63	353	2430	304	168	166	126	191	568
20	100	524	98	63	328	1340	290	161	133	119	145	790
21	106	514	95	62	290	1120	277	157	121	166	133	404
22	100	504	92	62	313	1270	264	150	114	660	134	267
23	103	494	89	62	1150	1320	286	157	111	272	125	214
24	384	489	87	61	2700	899	323	239	107	157	121	182
25	779	212	85	61	1900	722	440	196	116	142	112	168
26	561	136	82	61	1500	628	373	168	114	132	108	159
27	379	153	80	61	1100	561	318	150	112	115	112	142
28	286	209	78	60	824	662	348	139	190	110	100	133
29	239	209	77	60	---	824	716	133	202	137	102	127
30	231	161	75	60	---	651	529	130	158	115	109	121
31	1050	---	73	60	---	535	---	130	---	105	106	---
TOTAL	6155	12991	3721	2015	13485	34852	30215	10459	5004	7799	6929	7451
MEAN	199	433	120	65.0	482	1124	1007	337	167	252	224	248
MAX	1050	1140	240	72	2700	4800	5630	1130	611	821	997	862
MIN	78	136	73	60	56	368	264	130	107	105	99	86

CAL YR 1976 TOTAL 176767 MEAN 483 MAX 5230 MIN 73
WTR YR 1977 TOTAL 141076 MEAN 387 MAX 5630 MIN 56

03146500 LICKING RIVER NEAR NEWARK, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1968 to current year.
pH: July 1968 to current year.
WATER TEMPERATURES: June 1962 to current year.
DISSOLVED OXYGEN: July 1968 to current year.

INSTRUMENTATION.--Water quality monitor since July 1968. Temperature recorder June 1962 to July 1968.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum 1,650 micromhos Feb. 4, 1971; minimum recorded, 100 micromhos Aug. 18, 1969.
pH: Maximum, 10.2 units Mar. 8, 1974; minimum, 4.5 units May 24, 1970.
WATER TEMPERATURES: Maximum, 31.5°C July 14, 15, 1972; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Feb. 10-12, 1976; minimum, 0.0 mg/L Sept. 1, 1970.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,300 micromhos Feb. 12; minimum, 243 micromhos Aug. 8.
pH: Maximum, 8.6 units Nov. 17-19, 21; minimum, 7.1 units Feb. 19, 20.
WATER TEMPERATURES: Maximum, 29.5°C July 7; minimum, 0.0°C Dec. 31, Jan. 1, Feb. 16-18, 21.
DISSOLVED OXYGEN: Maximum recorded, 14.3 mg/L Apr. 27; minimum recorded, 3.6 mg/L Aug. 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
09...	1500	452	540	7.9	8.0	10.2	86	3.6	240	70	64	20
JUN												
14...	1420	146	760	7.9	21.0	7.4	82	5.0	300	87	78	26

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
09...	16	3.3	210	0	172	4.2	58	30	.2	6.6	302	2.0
JUN												
14...	29	5.4	262	0	215	5.3	78	48	.4	7.5	402	4.6

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
09...	.02	.67	.11	1	30	7	30	6	50	.0	30	6.5
JUN												
14...	.37	1.1	.36	2	20	8	40	3	60	.2	40	4.9

03146500 LICKING RIVER NEAR NEWARK, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	888	684	483	438	714	699	762	735	825	801	507	477
2	729	690	552	456	723	690	762	738	831	807	531	507
3	795	696	588	516	720	690	771	738	828	798	546	531
4	867	789	633	561	738	705	819	756	825	780	---	---
5	798	720	795	597	732	711	903	753	843	798	---	---
6	762	708	663	615	723	711	777	729	834	792	---	---
7	867	720	702	627	774	621	783	729	825	786	---	---
8	837	735	789	582	642	621	813	729	828	786	---	---
9	738	633	495	450	663	642	807	711	843	798	---	---
10	798	642	564	459	657	645	768	711	1010	804	---	---
11	729	675	540	462	666	639	813	738	1290	966	---	---
12	699	675	528	462	645	633	807	771	1300	930	---	---
13	717	681	504	477	639	624	909	807	993	645	---	---
14	735	717	507	456	693	636	825	756	666	615	---	---
15	885	720	483	456	684	663	915	783	609	573	---	---
16	879	747	480	423	687	663	903	747	597	573	---	---
17	831	747	447	426	690	669	840	759	633	585	---	---
18	1040	771	462	435	717	681	807	756	627	597	---	---
19	843	741	474	435	723	681	777	735	642	621	---	---
20	756	702	465	438	726	669	795	759	630	621	---	---
21	831	645	456	438	699	645	780	756	651	618	---	---
22	762	702	462	447	708	663	798	729	678	609	---	---
23	816	735	531	444	711	669	768	738	603	366	---	---
24	735	582	459	447	717	693	813	750	---	---	---	---
25	606	540	663	462	732	699	804	744	---	---	---	---
26	618	537	693	666	765	741	822	792	---	---	---	---
27	684	549	693	666	762	726	831	783	---	---	---	---
28	774	585	672	654	765	705	828	780	---	---	---	---
29	765	615	708	651	723	708	837	786	---	---	---	---
30	696	606	711	693	795	720	810	759	---	---	---	---
31	654	441	---	---	804	729	804	759	---	---	---	---
MONTH	1040	441	795	423	804	621	915	711	1300	366	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	804	624	570	549	807	783	747	516	777	759	720	705
2	744	624	591	507	---	---	594	549	789	765	714	705
3	732	288	603	573	---	---	648	603	804	771	708	630
4	387	333	597	510	---	---	687	357	807	786	702	615
5	354	300	501	474	---	---	489	321	837	786	693	639
6	417	342	483	378	---	---	585	468	813	771	699	687
7	453	420	462	375	---	---	687	588	795	261	750	690
8	483	453	492	462	---	---	588	519	402	243	786	738
9	540	489	543	495	---	---	693	585	510	381	807	786
10	561	543	603	552	---	---	654	603	609	480	816	804
11	651	558	633	609	---	---	678	603	687	573	843	801
12	597	582	654	627	---	---	606	309	576	501	855	798
13	696	585	657	639	---	---	480	315	564	516	828	813
14	660	597	663	648	750	708	591	489	588	441	---	---
15	630	603	669	651	744	708	663	597	588	474	---	---
16	645	609	681	648	762	732	672	654	609	537	---	---
17	684	630	693	669	753	615	702	648	648	609	---	---
18	663	618	693	642	666	600	750	660	654	639	---	---
19	687	627	750	636	663	639	750	717	687	657	---	---
20	657	633	711	696	699	636	759	726	723	690	---	---
21	687	642	720	696	735	693	771	411	738	720	585	576
22	708	651	723	708	825	732	573	303	807	702	630	588
23	693	654	762	723	786	747	588	402	741	732	675	633
24	684	654	759	618	1070	750	663	597	765	741	702	678
25	654	606	729	660	792	756	693	663	795	738	708	699
26	651	618	825	729	804	738	726	660	822	765	714	708
27	648	612	825	762	1030	759	738	717	786	732	747	717
28	654	573	807	759	777	534	765	741	795	762	762	738
29	585	531	810	795	654	630	774	492	771	750	786	759
30	585	536	804	783	771	645	744	522	750	735	789	768
31	---	---	888	753	---	---	777	750	735	717	---	---
MONTH	804	288	888	375	1070	534	777	303	837	243	855	576
YEAR	1300	243										

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.8	8.0	7.8	8.2	8.0	8.1	7.9	7.9	7.7	7.8	7.5
2	8.0	7.8	7.9	7.8	8.3	7.9	7.9	7.8	7.8	7.6	7.9	7.5
3	8.0	7.7	8.0	7.8	8.2	8.0	7.9	7.8	7.6	7.3	7.9	7.8
4	8.0	7.8	8.1	7.9	8.0	7.8	8.0	7.8	7.7	7.1	7.9	7.5
5	7.9	7.7	8.1	7.9	8.2	7.8	8.0	7.9	7.8	7.5	---	---
6	7.8	7.7	8.0	7.9	8.1	7.9	8.0	7.8	7.7	7.6	---	---
7	7.9	7.7	8.0	7.8	8.1	7.8	8.0	7.9	7.7	7.6	---	---
8	8.0	7.8	8.1	7.9	8.3	7.9	8.0	7.8	7.7	7.6	---	---
9	8.0	7.8	8.1	7.9	8.2	8.0	8.0	7.9	7.8	7.6	---	---
10	8.2	7.8	8.1	7.9	8.2	7.9	7.9	7.8	7.8	7.6	---	---
11	8.1	7.9	8.2	7.9	8.2	7.9	7.9	7.8	7.8	7.6	---	---
12	8.1	7.9	8.4	8.0	8.1	7.9	7.9	7.7	7.8	7.3	---	---
13	8.1	7.8	8.4	8.1	8.2	7.9	7.9	7.7	7.9	7.6	---	---
14	8.1	7.8	8.4	8.1	8.2	7.9	7.9	7.7	7.8	7.7	---	---
15	8.1	7.8	8.4	8.0	8.3	7.9	8.0	7.8	8.0	7.6	---	---
16	8.1	7.8	8.5	8.0	8.1	7.9	7.9	7.7	7.9	7.5	---	---
17	8.2	7.8	8.6	8.3	8.2	7.8	7.9	7.7	7.7	7.5	---	---
18	8.1	7.9	8.6	8.2	8.3	7.8	7.7	7.6	7.6	7.3	---	---
19	8.1	7.8	8.6	8.2	8.3	7.9	7.7	7.6	7.4	7.1	---	---
20	8.0	7.8	8.5	8.1	8.1	7.8	7.7	7.6	7.6	7.1	---	---
21	8.1	7.7	8.6	8.2	8.2	7.9	7.8	7.7	7.6	7.3	---	---
22	8.2	7.9	8.4	8.1	8.2	7.9	7.8	7.6	7.8	7.2	---	---
23	8.1	7.8	8.4	8.0	8.3	7.9	7.8	7.6	7.8	7.3	---	---
24	8.0	7.7	8.5	8.0	8.1	7.9	7.8	7.6	8.3	7.6	---	---
25	8.0	7.8	8.1	7.8	8.1	7.9	7.8	7.7	8.2	7.4	---	---
26	8.1	7.9	8.0	7.8	8.2	7.9	7.9	7.7	7.7	7.4	---	---
27	8.1	7.9	8.1	7.7	8.1	7.8	7.9	7.7	7.9	7.7	---	---
28	8.2	7.9	7.9	7.8	8.1	7.9	7.8	7.7	7.9	7.6	---	---
29	8.0	7.9	8.3	7.9	8.1	7.9	7.8	7.7	---	---	---	---
30	8.1	7.8	8.2	7.9	8.0	7.9	7.8	7.6	---	---	---	---
31	8.1	7.9	---	---	8.1	7.9	7.8	7.7	---	---	---	---
MONTH	8.2	7.7	8.6	7.7	8.3	7.8	8.1	7.6	8.3	7.1	7.9	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.4	7.7	7.8	7.7	7.8	7.5	7.9	7.6	7.8	7.5
2	---	---	8.2	7.6	---	---	7.9	7.6	7.9	7.6	7.8	7.5
3	7.5	7.4	8.3	7.7	---	---	7.9	7.7	7.8	7.6	8.0	7.5
4	7.5	7.4	8.0	7.6	---	---	7.7	7.5	7.8	7.6	7.8	7.6
5	7.6	7.5	8.1	7.7	---	---	7.7	7.5	7.8	7.6	7.8	7.5
6	7.7	7.5	7.9	7.6	---	---	7.7	7.6	7.8	7.4	7.7	7.5
7	7.7	7.6	8.0	7.6	---	---	7.7	7.6	7.7	7.2	7.8	7.6
8	7.9	7.6	8.3	7.8	---	---	7.6	7.5	7.5	7.3	7.8	7.6
9	7.8	7.7	8.3	7.9	---	---	7.8	7.5	7.7	7.3	7.8	7.6
10	7.7	7.7	8.1	7.8	---	---	7.9	7.6	7.7	7.3	7.9	7.6
11	7.8	7.7	8.1	7.8	---	---	7.9	7.7	7.8	7.3	7.9	7.7
12	7.8	7.7	8.1	7.8	---	---	7.7	7.5	7.9	7.6	7.9	7.7
13	7.9	7.7	8.1	7.8	---	---	7.6	7.4	7.8	7.8	7.8	7.6
14	8.0	7.7	8.1	7.7	7.8	7.7	7.8	7.7	7.8	7.6	---	---
15	8.1	7.7	8.1	7.8	7.9	7.7	7.8	7.7	7.8	7.6	---	---
16	8.1	7.7	8.0	7.7	7.9	7.6	7.8	7.6	7.8	7.7	---	---
17	8.2	7.7	8.0	7.5	7.9	7.6	7.8	7.5	7.9	7.7	---	---
18	8.2	7.7	7.9	7.5	7.8	7.5	7.9	7.6	8.0	7.8	---	---
19	8.1	7.6	7.8	7.4	7.8	7.6	7.9	7.5	8.0	7.9	---	---
20	8.1	7.6	7.7	7.4	7.8	7.6	7.8	7.5	7.9	7.8	---	---
21	8.1	7.6	7.7	7.4	7.9	7.6	8.0	7.3	7.9	7.7	7.7	7.6
22	8.0	7.6	7.7	7.4	7.9	7.6	7.6	7.3	7.9	7.7	7.8	7.6
23	8.0	7.5	7.9	7.4	8.0	7.7	7.7	7.5	7.9	7.7	7.7	7.7
24	8.1	7.6	7.9	7.5	7.9	7.6	7.8	7.6	7.8	7.6	7.8	7.6
25	8.2	7.7	7.9	7.6	7.7	7.6	7.8	7.6	7.8	7.7	7.9	7.7
26	8.2	7.7	8.0	7.8	8.0	7.6	7.8	7.6	7.8	7.7	7.9	7.7
27	8.3	7.7	7.9	7.8	7.9	7.6	7.9	7.6	7.7	7.5	7.9	7.7
28	8.0	7.7	7.9	7.8	7.9	7.4	7.9	7.7	7.8	7.6	8.0	7.7
29	8.2	7.8	7.9	7.8	7.7	7.6	7.8	7.3	7.8	7.6	7.9	7.8
30	8.2	7.7	8.0	7.8	8.0	7.7	7.9	7.3	7.7	7.5	7.9	7.8
31	---	---	7.9	7.8	---	---	7.9	7.6	7.8	7.5	---	---
MONTH	8.3	7.4	8.4	7.4	8.0	7.4	8.0	7.3	8.0	7.2	8.0	7.5
YEAR	8.6	7.1										

03146500 LICKING RIVER NEAR NEWARK, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	13.0	8.0	4.5	3.5	1.5	0.5	0.0	2.5	1.5	6.0	4.0
2	17.0	14.0	8.5	5.5	3.5	1.0	1.5	0.5	3.5	1.5	6.0	3.0
3	17.5	14.0	9.5	7.5	1.0	0.0	2.0	1.0	3.5	3.0	5.5	3.0
4	18.0	13.5	8.0	6.0	3.0	1.0	2.5	1.5	4.0	2.5	6.5	5.5
5	19.0	14.5	7.5	5.5	3.0	1.0	3.0	2.0	2.5	1.5	6.5	4.5
6	18.5	16.0	8.0	5.0	5.0	1.5	2.5	1.0	2.5	1.5	6.5	4.0
7	16.0	13.5	7.5	6.5	5.0	2.0	2.5	1.0	3.0	1.5	5.0	4.0
8	14.0	12.5	6.0	3.5	2.0	1.0	1.0	0.5	3.0	1.0	7.0	3.0
9	14.0	11.0	6.0	3.5	2.5	1.0	1.0	0.5	3.5	1.5	9.5	5.0
10	13.0	9.5	6.0	5.0	4.5	2.0	1.0	0.5	5.0	2.5	11.0	6.5
11	13.5	11.0	6.0	5.0	5.0	3.5	1.5	1.0	6.5	4.0	11.5	7.0
12	14.5	10.0	5.5	4.0	5.0	4.0	2.0	1.5	6.0	4.5	10.5	9.5
13	16.0	12.5	5.0	3.0	3.5	2.0	1.5	1.0	5.0	2.5	9.5	7.5
14	15.0	11.0	4.5	2.5	3.5	1.0	2.0	1.5	2.5	2.0	8.5	7.0
15	14.5	11.0	5.5	3.0	4.5	2.5	2.0	1.5	2.5	1.5	11.0	6.5
16	14.0	10.5	5.5	3.0	3.5	2.5	1.5	0.5	2.5	0.0	9.5	8.5
17	12.5	10.0	5.5	3.0	4.0	3.0	1.0	0.5	1.5	0.0	9.5	7.5
18	10.0	6.5	6.5	4.0	4.5	2.5	1.5	0.5	2.5	0.0	8.5	7.0
19	11.0	7.5	7.0	5.5	6.5	2.5	2.0	1.0	4.5	1.5	7.5	6.0
20	11.0	9.5	6.0	4.5	6.5	3.5	2.0	1.5	3.0	1.5	7.0	5.5
21	9.5	7.5	5.0	4.0	3.0	0.5	2.0	1.5	3.0	0.0	8.0	5.5
22	7.5	5.5	4.5	3.5	1.5	0.5	2.0	1.5	5.5	1.5	8.0	6.0
23	7.5	5.0	3.5	2.0	1.5	0.5	2.0	1.5	3.5	0.5	7.0	6.5
24	8.5	7.0	3.0	1.5	1.0	0.5	2.0	2.0	---	---	7.5	6.0
25	8.5	8.0	6.5	2.5	2.5	1.0	2.5	2.0	2.0	1.5	8.5	5.5
26	8.0	7.0	9.5	6.5	3.0	2.0	3.0	2.0	3.0	1.5	9.5	6.5
27	7.0	5.5	11.0	9.5	2.0	1.0	2.0	1.0	3.0	1.5	10.0	7.5
28	6.5	3.5	9.5	5.5	3.0	2.0	1.5	0.5	4.5	0.5	11.5	9.5
29	7.0	3.5	5.5	2.5	2.5	1.0	0.5	0.5	---	---	11.0	10.0
30	6.5	5.0	2.0	0.5	1.5	0.5	1.0	0.5	---	---	12.0	10.5
31	7.0	6.0	---	---	1.0	0.0	2.0	1.0	---	---	12.5	10.0
MONTH	19.0	3.5	11.0	0.5	6.5	0.0	3.0	0.0	6.5	0.0	12.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	9.0	17.5	11.0	24.5	20.5	25.0	20.5	24.5	21.5	26.5	22.5
2	11.5	10.0	17.0	15.0	---	---	25.0	19.5	25.0	19.5	26.0	23.0
3	12.0	10.0	19.5	15.0	---	---	25.0	19.5	25.5	20.5	25.0	22.0
4	11.5	10.0	18.0	16.0	---	---	23.5	20.0	26.0	21.5	24.5	20.0
5	11.0	7.5	21.0	16.5	---	---	26.5	20.5	26.5	23.5	25.0	21.0
6	7.5	6.0	19.5	18.5	---	---	29.0	22.5	27.0	23.5	24.0	21.5
7	8.0	5.0	20.5	17.5	---	---	29.5	24.5	26.0	21.5	24.0	19.5
8	9.5	6.0	19.5	14.5	---	---	28.0	23.5	23.5	21.5	23.5	20.0
9	11.0	5.5	15.5	12.5	---	---	26.5	24.0	25.5	20.5	24.5	20.5
10	14.0	7.0	14.5	10.0	---	---	25.0	21.0	25.0	21.5	24.0	21.0
11	17.0	11.0	17.5	10.5	---	---	25.5	21.5	25.0	21.5	22.0	18.0
12	18.5	13.0	18.0	12.5	---	---	24.5	22.0	23.0	21.5	20.0	16.5
13	19.5	14.0	21.5	15.0	---	---	26.0	21.0	23.0	20.5	19.5	18.5
14	18.0	14.5	20.0	17.0	22.0	20.5	27.5	21.0	25.0	20.5	---	---
15	18.5	13.5	21.5	15.0	24.5	18.5	28.0	22.0	25.5	21.0	---	---
16	18.5	13.0	22.5	16.0	25.5	19.5	28.0	24.0	25.5	21.5	---	---
17	18.0	14.0	23.0	17.5	25.5	21.0	27.0	23.0	24.5	22.0	---	---
18	18.0	14.5	24.0	19.0	25.5	21.5	29.0	22.5	23.0	19.0	---	---
19	17.0	15.0	26.0	20.5	25.0	21.0	29.0	24.5	21.0	17.5	---	---
20	20.0	15.0	25.5	20.0	25.0	20.5	29.0	25.0	22.0	17.0	---	---
21	20.0	16.5	26.0	20.0	24.0	19.5	28.0	25.0	20.5	18.0	17.0	17.0
22	19.0	17.0	25.5	20.0	22.5	18.0	25.0	22.0	22.5	18.0	19.5	16.0
23	18.0	16.5	25.5	20.5	22.5	16.5	25.5	20.0	23.5	18.5	21.0	16.5
24	16.5	13.0	25.0	20.5	22.5	19.0	25.0	20.0	23.0	20.5	20.5	18.5
25	13.0	11.0	25.0	21.0	24.0	20.5	25.5	23.0	21.5	16.5	21.5	18.5
26	12.0	10.0	25.5	19.5	26.5	20.5	24.0	20.5	23.5	17.0	22.0	19.5
27	16.0	9.0	26.0	19.5	24.5	20.5	24.0	19.0	26.0	21.0	20.5	17.5
28	15.0	10.5	26.0	20.0	24.0	20.5	24.5	19.0	26.5	22.5	19.5	16.0
29	13.5	8.0	24.5	20.5	23.0	20.5	24.5	21.5	26.0	23.0	19.0	14.5
30	16.0	9.5	24.5	20.0	23.5	20.0	25.0	20.0	24.0	22.0	20.0	16.0
31	---	---	25.5	20.5	---	---	25.5	21.5	26.0	21.0	---	---
MONTH	20.0	5.0	26.0	10.0	26.5	16.5	29.5	19.0	27.0	16.5	26.5	14.5
YEAR	29.5	0.0										

03146500 LICKING RIVER NEAR NEWARK, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.2	6.0	12.6	10.6	13.7	12.3	11.8	10.9	11.3	10.0	11.0	10.1
2	9.6	5.8	11.3	10.2	12.9	11.4	11.6	10.6	11.3	10.1	10.9	9.9
3	9.6	5.7	11.2	10.0	12.7	12.2	11.5	10.4	11.3	9.7	10.2	9.4
4	9.3	5.7	11.6	10.0	12.5	11.6	11.1	10.0	10.7	9.7	---	---
5	9.0	5.3	11.8	10.4	12.7	11.5	11.0	10.1	11.0	9.6	---	---
6	7.8	5.0	11.9	10.3	12.4	10.8	11.2	10.4	11.1	9.9	---	---
7	7.8	5.4	11.4	9.9	12.3	10.8	11.4	10.1	11.2	10.0	---	---
8	9.5	6.3	12.0	9.8	12.8	12.1	11.6	10.6	11.2	10.1	---	---
9	8.8	6.5	12.4	10.9	12.7	11.9	11.4	10.4	11.0	9.9	---	---
10	11.2	7.4	12.2	10.7	12.3	10.9	11.3	10.3	10.7	9.4	---	---
11	11.2	7.4	12.3	10.8	11.3	10.7	11.5	10.7	10.3	8.7	---	---
12	10.8	7.5	13.1	11.1	11.8	10.7	11.6	10.4	9.6	8.6	---	---
13	10.0	6.6	13.1	11.4	12.3	11.1	11.4	10.6	10.0	8.6	---	---
14	10.1	6.5	13.1	11.6	12.7	11.3	11.3	10.0	10.5	10.1	---	---
15	9.4	6.6	13.3	11.3	12.5	11.0	11.0	9.9	10.7	10.4	---	---
16	10.0	6.5	13.2	11.8	11.7	10.1	11.5	10.2	10.7	10.5	---	---
17	10.5	6.7	12.9	11.6	11.7	10.1	11.5	10.2	10.6	10.5	---	---
18	10.5	7.9	12.3	11.3	12.3	10.2	11.2	10.0	10.6	10.2	---	---
19	9.8	7.5	11.8	11.0	11.8	10.3	11.1	9.9	10.3	9.6	---	---
20	9.4	6.7	12.3	11.4	10.1	8.6	10.9	10.0	10.4	9.6	---	---
21	10.9	6.9	12.4	11.6	12.6	9.7	11.1	10.0	10.5	9.9	---	---
22	11.8	8.3	12.6	11.9	12.6	10.9	11.3	10.0	10.1	9.2	---	---
23	11.2	8.7	13.6	12.6	12.0	10.9	11.3	10.3	10.2	9.0	---	---
24	10.0	7.9	14.0	13.1	12.2	11.0	11.2	9.9	9.2	7.7	---	---
25	10.0	8.8	13.4	11.1	11.6	10.7	11.0	9.8	---	---	---	---
26	10.8	9.7	11.1	9.8	11.4	10.0	11.0	9.8	---	---	---	---
27	11.6	9.9	9.8	9.2	11.8	10.5	11.3	10.0	---	---	---	---
28	12.0	10.4	11.3	9.7	11.2	10.2	11.3	9.9	11.7	11.0	---	---
29	12.0	10.3	13.1	11.4	12.0	10.3	11.3	10.5	---	---	---	---
30	12.0	9.8	14.1	13.2	11.8	10.8	11.3	10.1	---	---	---	---
31	12.3	10.9	---	---	11.8	10.7	11.3	10.1	---	---	---	---
MONTH	12.3	5.0	14.1	9.2	13.7	8.6	11.8	9.8	11.7	7.7	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	13.4	8.0	---	---	7.0	5.1	---	---	8.0	4.6
2	---	---	12.2	6.3	---	---	7.5	6.1	---	---	7.5	4.5
3	11.6	10.2	13.5	7.0	---	---	7.9	5.7	---	---	8.0	4.5
4	10.4	10.2	10.3	6.1	---	---	6.5	4.9	---	---	7.8	4.5
5	11.6	10.4	9.9	7.4	---	---	7.3	6.1	---	---	7.4	4.5
6	12.4	11.6	8.8	6.6	---	---	6.4	5.1	---	---	6.3	4.5
7	12.9	12.0	8.8	7.3	---	---	6.3	4.8	---	---	7.6	4.5
8	12.9	11.9	10.4	7.7	---	---	6.1	3.8	---	---	7.5	4.5
9	12.6	11.4	11.0	8.0	---	---	6.8	5.0	---	---	7.1	4.4
10	12.1	10.5	10.9	8.4	---	---	7.8	4.8	---	---	7.2	4.1
11	11.2	9.7	11.1	8.4	---	---	8.1	5.7	6.9	5.8	7.9	4.5
12	10.8	9.3	11.2	7.6	---	---	7.2	5.0	7.3	5.5	7.8	4.9
13	10.4	8.4	11.4	6.9	---	---	7.1	6.0	7.1	6.5	6.5	4.6
14	10.9	8.1	11.1	6.0	6.2	5.2	7.4	6.1	6.9	6.2	---	---
15	11.6	8.3	11.8	6.5	6.8	4.6	7.3	5.8	6.9	6.0	---	---
16	12.5	8.1	11.7	5.7	7.5	3.8	7.7	5.3	7.0	6.0	---	---
17	12.9	7.7	11.7	5.0	8.9	4.9	8.4	4.4	7.1	5.7	---	---
18	13.4	7.5	11.4	4.6	6.9	5.0	9.0	4.9	8.1	6.0	---	---
19	11.5	6.6	10.5	4.3	7.2	5.1	9.3	4.2	8.4	6.2	---	---
20	13.1	6.9	10.2	4.1	7.9	5.3	9.7	4.0	7.9	6.1	---	---
21	12.3	6.1	9.7	4.0	8.0	4.5	10.0	4.0	7.3	5.5	7.2	7.0
22	11.3	6.0	9.6	4.0	8.7	4.9	6.3	3.8	7.7	5.1	7.8	6.9
23	11.2	6.0	5.3	3.8	10.0	6.1	---	---	8.2	5.4	7.7	6.3
24	11.7	6.7	---	---	9.5	5.2	---	---	7.0	4.8	7.2	5.7
25	12.4	7.3	---	---	7.6	5.1	---	---	8.0	5.2	8.2	5.7
26	12.7	8.3	---	---	10.0	4.5	---	---	8.3	5.1	7.8	5.6
27	14.3	8.5	---	---	8.6	4.4	---	---	7.6	3.6	8.0	5.3
28	10.3	7.0	---	---	7.8	4.4	---	---	7.8	4.2	8.4	5.6
29	12.0	8.6	---	---	5.7	4.9	---	---	7.0	4.7	8.7	5.8
30	12.4	8.8	---	---	8.9	5.1	---	---	6.9	4.3	8.4	5.5
31	---	---	---	---	---	---	---	---	7.7	4.6	---	---
MONTH	14.3	6.0	13.5	3.8	10.0	3.8	10.0	3.8	8.4	3.6	8.7	4.1
YEAR	14.3	3.6										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03147500 LICKING RIVER BELOW DILLON DAM, NEAR DILLON FALLS, OH

LOCATION.--Lat 39°59'18", long 82°04'50", in T.1 N., R.8 W., Muskingum County, Hydrologic Unit 05040006, on left bank 500 ft (152 m) downstream from Dillon Dam, 2.0 mi (3.2 km) northwest of Dillon Falls, and 5.8 mi (9.3 km) upstream from mouth.

DRAINAGE AREA.--742 mi² (1,922 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1962, published as Licking River at Dillon.

REVISED RECORDS.--WRD Ohio, 1966: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 700.0 ft (213.36 m) above mean sea level, Corps of Engineers bench mark. Prior to Oct. 27, 1940, water-stage recorder at site 2.3 mi (3.7 km) downstream at different datum. Oct. 27, 1940, to Sept. 30, 1962, water-stage recorder at site 2.6 mi (4.2 km) downstream at datum 16.3 ft (4.97 m) lower.

REMARKS.--Records good. Flow regulated by Dillon Lake since December 1960 (see station 03147300).

AVERAGE DISCHARGE.--37 years, 784 ft³/s (22.20 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,000 ft³/s (1,330 m³/s) Jan. 22, 1959, gage height, 32.46 ft (9.894 m); minimum daily, 19 ft³/s (0.54 m³/s) Dec. 22, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 37.0 ft (11.28 m) site and datum in use 1940-62, from floodmark, backwater from Muskingum River.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,780 ft³/s (107 m³/s) Apr. 15, gage height, 8.84 ft (2.694 m); minimum daily, 75 ft³/s(2.12 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	1340	176	134	106	2950	265	731	134	328	117	143
2	164	1390	195	146	114	3560	280	556	94	513	114	143
3	185	725	195	158	134	3490	287	621	94	294	114	146
4	152	499	185	173	134	2820	294	621	94	228	114	214
5	146	494	198	173	128	2190	301	1050	94	742	97	185
6	158	366	164	143	134	2190	301	1400	91	785	86	111
7	155	287	269	143	131	2090	301	1780	91	195	430	143
8	155	298	347	158	122	1600	1110	1740	94	290	1280	143
9	155	408	358	140	103	953	1950	1130	313	301	715	131
10	195	596	343	173	100	725	1940	641	601	262	350	106
11	214	652	305	152	146	596	2770	404	404	269	265	97
12	179	652	287	108	167	518	3290	466	238	269	439	75
13	155	556	283	131	176	586	3220	494	221	305	561	100
14	158	499	258	140	164	1500	3170	395	182	305	305	417
15	155	601	231	140	652	2080	3390	350	182	248	404	841
16	155	742	238	140	1180	2150	3330	350	173	201	709	769
17	155	736	248	140	959	2190	3230	320	158	198	413	1010
18	155	758	231	140	532	1920	3240	214	208	167	201	709
19	155	791	221	137	542	1540	3260	258	287	152	245	556
20	195	774	214	120	485	1570	2500	255	176	152	224	971
21	208	736	228	128	439	1950	1180	218	97	152	182	870
22	158	763	218	137	387	2190	720	245	89	301	167	476
23	149	785	204	140	911	2190	413	238	120	489	167	358
24	276	736	218	140	1290	2190	508	224	137	413	167	294
25	683	621	198	140	1380	2190	581	287	140	228	152	276
26	824	444	195	140	1400	2190	657	283	164	188	111	331
27	542	362	198	140	1400	1990	485	214	176	122	111	262
28	358	269	195	137	1740	1100	508	185	208	86	108	198
29	354	294	195	140	---	1100	923	185	320	114	111	176
30	272	262	149	120	---	1120	791	185	221	185	170	164
31	485	---	111	106	---	688	---	173	---	155	182	---
TOTAL	7629	18436	7055	4357	15156	56116	45195	16213	5601	8637	8811	10415
MEAN	246	615	228	141	541	1810	1507	523	187	279	284	347
MAX	824	1390	358	173	1740	3560	3390	1780	601	785	1280	1010
MIN	146	262	111	106	100	518	265	173	89	86	86	75

CAL YR 1976 TOTAL 232070 MEAN 634 MAX 3890 MIN 111
WTR YR 1977 TOTAL 203621 MEAN 558 MAX 3560 MIN 75

03147500 LICKING RIVER BELOW DILLON DAM, NEAR DILLON FALLS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

REMARKS.--Water-temperature records collected at this site 1961 to 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PER CENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 31...	1300	652	490	8.0	12.5	10.8	100	1.7	200	65	54	17
JUN 22...	1400	86	535	7.5	19.0	5.5	59	4.3	220	59	57	20

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 31...	12	3.2	170	0	139	2.7	47	25	.1	6.8	249	1.8
JUN 22...	21	4.6	202	0	166	10	53	36	.2	5.4	297	1.1

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 31...	.03	.21	.08	2	<10	3	10	3	100	.0	20	--
JUN 22...	.02	.53	.12	3	10	6	80	8	440	.0	60	7.0

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH

(NATIONAL STREAM QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 39°38'42", long 81°51'00", in SE 1/4 sec. 11, T.10 N., R.12 W., Morgan County, Hydrologic Unit 05040004, on left bank just upstream from Dam 7, at McConnelsville, and 3.5 mi (5.6 km) downstream from Oilspring Run.

DRAINGE AREA.--7,422 mi² (19,223 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 783: 1913(M). WSP 853: 1933(M). WSP 1173: 1922-24, 1928(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 650.31 ft (198.214 m) above mean sea level, adjustment of 1912. Prior to July 27, 1922, nonrecording gage at site 0.5 mi (0.8 km) upstream at same datum. July 27, 1922, to Aug. 10, 1926, nonrecording gage and Aug. 11, 1926, to Sept. 8, 1959, water-stage recorder at present site and datum. Sept. 9, 1959, to July 18, 1960, nonrecording gage at site 0.5 mi (0.8 km) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by 17 flood-control reservoirs 36.6 mi (58.9 km) to 148 mi (238 km) upstream from station. Some regulation at low flow by powerplant 19 mi (31 km) upstream from station.

AVERAGE DISCHARGE.--56 years, 7,315 ft³/s (207.2 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 126,000 ft³/s (3,570 m³/s) Jan. 26, 1937, gage height, 21.14 ft (6.443 m); minimum daily, 325 ft³/s (9.20 m³/s) Oct. 12, 1930, may have been lower during August 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913 reached a stage of 33.5 ft (10.21 m), discharge, 270,000 ft³/s (7,650 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,200 ft³/s (855 m³/s) Apr. 5, gage height, 9.10 ft (2.774 m); minimum daily, 1,050 ft³/s (29.7 m³/s) Jan. 31, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2520	4580	2500	1200	1150	21300	10200	8110	2090	3230	3910	1980
2	2320	5900	2650	1200	1190	19200	13400	7340	1970	4130	3780	1880
3	2190	5530	2400	1200	1180	16800	26200	7040	1950	4640	3250	1980
4	1980	4490	2300	1200	1150	15900	27200	8150	1930	3810	2710	1980
5	1830	4020	2450	1200	1130	15500	28900	8870	1880	5990	2400	2750
6	1740	3580	2500	1200	1110	15000	26100	12000	1910	9380	2150	2300
7	1720	3150	2900	1200	1100	14700	24500	14900	2280	8080	3010	2020
8	1670	2940	3300	1200	1090	11700	25100	12700	2870	5900	5800	1950
9	1830	2800	4300	1200	1050	9670	25800	11200	3150	5250	6740	1930
10	1950	2850	4400	1100	1090	8220	25600	9130	3370	4780	7410	1720
11	2060	2890	4100	1100	1160	7720	25600	7940	3760	3990	7280	1550
12	2260	2800	3800	1100	1250	7140	26500	7280	3450	3700	6870	1430
13	2320	2730	3700	1100	1500	12200	25700	6540	2890	4870	6120	1360
14	2240	2560	3600	1100	2800	14500	24600	5960	2670	4580	5250	1550
15	2090	2480	3400	1100	3500	21800	22300	5340	2520	3500	5140	3080
16	1950	2500	3100	1100	4000	20700	19300	4870	2300	2890	5530	4610
17	1810	2780	2600	1100	6120	18300	14600	4440	2190	2750	5020	5250
18	1670	3150	2300	1100	5110	19400	12100	4050	2090	2750	4380	5470
19	1590	3200	2300	1100	4520	21900	10900	3760	2800	2960	4160	5860
20	1620	3180	2350	1100	4300	23200	9710	3630	3730	2890	3650	8360
21	1810	3080	2400	1100	3890	23000	7550	3470	3320	2650	3180	10000
22	1790	3110	2350	1100	3780	22200	6470	3350	2850	3470	2960	8510
23	1830	3110	2200	1100	5990	21300	6090	3110	2420	6210	2780	7310
24	2130	2960	1800	1100	13500	21000	6090	2990	2220	7210	3230	5800
25	3010	2890	1500	1100	22000	20400	6600	2940	2340	6510	3110	4580
26	3810	2730	1400	1100	24300	18700	7450	2890	2560	5620	2630	4210
27	4050	2920	1400	1100	24400	16700	7210	2780	2440	4640	2360	4490
28	3630	3110	1300	1100	23000	13800	6970	2580	2400	3730	2200	4050
29	3200	3230	1300	1100	---	12400	8080	2460	2600	4840	2080	3450
30	2960	3300	1200	1100	---	12700	8080	2340	2520	4550	2130	2960
31	3420	---	1200	1050	---	12200	---	2220	---	3200	2080	---
TOTAL	71000	98550	79000	34950	166360	515250	494900	184380	77470	142700	123300	114370
MEAN	2290	3285	2548	1127	5941	16620	16500	5948	2582	4603	3977	3812
MAX	4050	5900	4400	1200	24400	23200	28900	14900	3760	9380	7410	10000
MIN	1590	2480	1200	1050	1050	7140	6090	2220	1880	2650	2080	1360

CAL YR 1976 TOTAL 2624150 MEAN 7170 MAX 29700 MIN 1200
WTR YR 1977 TOTAL 2102230 MEAN 5760 MAX 28900 MIN 1050

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

WATER-QUALITY RECORDS

LOCATION.--Water-quality monitor on left bank, 1.0 mi (1.6 km) upstream from discharge station. Saples collected at bridge on State Highways 37 and 78, 240 ft (73 m) downstream from water-quality monitor. Prior to January 1973, sampling site at discharge station.

PERIOD OF RECORD.--Water year 1950 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1973 to current year.
pH: February 1973 to current year.
WATER TEMPERATURES: February 1973 to current year.
DISSOLVED OXYGEN: February 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1973.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

COOPERATION.--Pesticide analyses furnished by Environmental Protection Agency.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,440 micromhos July 7, 1974; minimum, 278 micromhos Feb. 25, 1975.
pH; Maximum, 9.3 units Feb. 16, 1974; minimum, 5.4 units Apr. 15, 1973.
WATER TEMPERATURES: Maximum, 33.5 °C Aug. 8, 1973; minimum, 0.0°C on several days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Dec. 20-27, 1975 (revised); minimum, 2.4 mg/L June 19, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,250 micromhos Sept. 11; minimum, 284 micromhos Apr. 5.
pH: Maximum, 9.0 units May 18; minimum, 6.8 units July 14.
WATER TEMPERATURES: Maximum, 30.5°C July 20, 21; minimum, 0.5 °C on many days during January and February.
DISSOLVED OXYGEN: Maximum, 14.4 mg/L Dec. 23; minimum, 4.4 mg/L Aug. 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT											
19...	1100	1590	1000	8.0	13.0	10	8.8	83	115	15	350
NOV											
15...	1100	2480	790	7.8	5.5	--	10.2	81	310	55	--
DEC											
09...	1130	4100	815	7.4	1.0	--	12.2	86	1000	8000	--
JAN											
21...	1300	1100	1050	7.8	.5	--	11.7	81	610	210	--
FEB											
23...	1100	5320	770	7.7	2.0	6	11.2	81	480	1400	260
MAR											
09...	1130	10000	500	8.0	6.0	--	12.0	96	1200	1800	--
APR											
05...	1200	29000	320	7.0	11.0	100	10.0	90	2200	44000	120
MAY											
11...	1300	7900	550	7.8	15.0	--	9.2	90	550	150	--
JUN											
07...	1200	2260	864	7.7	21.5	--	8.2	92	28	32	--
JUL											
07...	1200	8180	606	7.4	25.5	7	6.8	82	380	640	210
AUG											
03...	1300	3220	708	7.8	25.0	--	6.6	78	210	160	--
SEP											
07...	1300	2040	960	8.0	26.0	--	5.7	69	76	420	--

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT											
19...	220	100	25	63	5.0	162	0	133	2.6	170	130
NOV											
15...	--	--	--	--	--	--	--	--	--	--	--
DEC											
09...	--	--	--	--	--	--	--	--	--	--	--
JAN											
21...	--	--	--	--	--	--	--	--	--	--	--
FEB											
23...	160	71	21	56	5.4	121	0	99	3.9	120	110
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	81	33	9.4	13	3.4	49	0	40	7.8	68	21
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
JUL											
07...	120	59	16	33	4.3	110	0	90	7.0	100	59
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
07...	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)
OCT											
19...	.4	6.5	600	580	1.1	.83	1.9	8.5	.10	6.1	43000
NOV											
15...	--	--	--	--	1.3	.53	1.8	8.1	.13	--	18000
DEC											
09...	--	--	--	--	.81	.78	1.6	7.0	.14	--	58000
JAN											
21...	--	--	--	--	1.3	1.9	3.2	14	.14	--	16000
FEB											
23...	.2	7.9	523	452	1.8	1.5	3.3	15	.16	5.7	--
MAR											
09...	--	--	--	--	2.4	.99	3.4	15	.13	--	3700
APR											
05...	.1	7.0	209	180	1.5	1.4	2.9	13	.25	5.2	4900
MAY											
11...	--	--	--	--	.88	.65	1.5	6.8	.11	--	26000
JUN											
07...	--	--	--	--	.12	1.2	1.3	5.8	.11	--	29000
JUL											
07...	.2	5.9	406	332	1.7	.97	2.7	12	.17	5.0	--
AUG											
03...	--	--	--	--	.49	1.2	1.7	7.5	.11	--	--
SEP											
07...	--	--	--	--	.03	.98	1.0	4.5	.10	--	--

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

ANALYSES OF MINOR ELEMENTS

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT 19...	1100	2	1	1	0	30	<10	1	1	10	0	930
FEB 23...	1100	2	0	0	0	60	13	4	0	22	5	1500
APR 05...	1200	1	1	0	0	30	1	5	6	15	5	14000
JUL 07...	1200	2	2	0	0	20	3	3	0	9	5	4000

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 19...	50	12	0	570	430	<.5	<.5	0	0	20	10
FEB 23...	40	12	0	700	700	.0	.0	--	0	30	10
APR 05...	120	21	0	760	240	.0	.0	0	0	100	100
JUL 07...	70	17	11	240	60	.1	.1	0	0	70	60

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT 19...	1100	1590	13.0	22	94
NOV 15...	1100	2480	5.5	11	74
DEC 09...	1130	4100	1.0	12	133
JAN 21...	1300	1100	.5	4	16
FEB 23...	1100	5320	2.0	11	158
MAR 09...	1130	10000	6.0	34	918
APR 05...	1200	29000	11.0	444	34800
MAY 11...	1300	7900	15.0	30	640
JUN 07...	1200	2260	21.5	25	153
JUL 07...	1200	8180	25.5	78	1720
AUG 03...	1300	3220	25.0	36	313
SEP 07...	1300	2040	26.0	15	83

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

PESTICIDE ANALYSES

DATE	TIME	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ATRAZINE (UG/L)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)
NOV 15...	1100	--	ND	--	ND	--	43	--	ND	--
FEB 23...	1100	ND	--	ND	--	ND	--	ND	--	ND
MAY 11...	1300	ND	--	ND	--	ND	--	ND	--	ND
AUG 03...	1230	ND	--	.72	--	ND	--	ND	--	ND

DATE	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)
NOV 15...	ND	--	ND	--	ND	--	1.0	--	ND	--
FEB 23...	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 11...	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 03...	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	MALATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHOXYCHLOR (UG/L)
NOV 15...	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 23...	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 11...	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 03...	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL TRITHION (UG/L)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL PARATHION (UG/L)	PARATHION IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL TOXAPHENE (UG/L)
NOV 15...	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 23...	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 11...	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 03...	--	ND	--	ND	--	ND	--	.50	--	ND

DATE	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MATERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MATERIAL (UG/KG)
NOV 15...	ND	--	ND	--	ND	--	ND	--	ND
FEB 23...	--	ND	--	ND	--	ND	--	ND	--
MAY 11...	--	ND	--	ND	--	ND	--	ND	--
AUG 03...	--	ND	--	ND	--	ND	--	ND	--

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	998	957	882	795	897	854	900	864	1160	1150	444	410
2	987	957	792	723	858	768	863	849	1160	1150	464	432
3	1020	987	725	699	770	765	876	854	1150	1130	467	446
4	1040	1010	740	704	---	---	915	876	1130	1120	470	441
5	1020	987	812	737	---	---	938	917	1140	1120	486	465
6	1040	884	813	792	---	---	920	911	1120	1100	501	488
7	872	809	792	740	---	---	941	921	1100	1080	525	495
8	870	812	735	671	---	---	959	936	1080	1070	527	488
9	893	858	696	675	815	804	957	947	1110	1080	507	489
10	921	891	765	696	804	782	971	947	1130	1110	534	507
11	938	918	813	764	800	788	1000	974	1120	1110	557	534
12	933	908	822	809	810	767	995	989	1140	1110	566	546
13	944	900	828	812	762	744	1030	998	1150	1100	569	545
14	960	935	840	819	767	731	1060	1030	1110	1090	536	413
15	941	918	824	782	809	770	1090	1050	---	---	455	414
16	926	924	809	774	795	774	1110	1090	---	---	410	378
17	---	---	---	---	800	768	1120	1110	1130	1040	441	410
18	---	---	---	---	795	780	1110	1070	1150	1100	441	428
19	---	---	---	---	792	777	1070	1030	1100	1000	443	420
20	---	---	---	---	777	747	1040	1020	995	882	434	410
21	---	---	---	---	762	744	1060	1040	879	819	407	369
22	851	843	---	---	776	761	1090	1070	818	797	410	377
23	858	843	---	---	828	777	1100	1080	795	728	440	410
24	867	849	735	722	860	831	1100	1090	720	543	438	425
25	902	872	738	717	873	855	1100	1090	540	470	444	431
26	902	875	770	740	885	867	1100	1070	462	375	455	435
27	894	849	785	762	914	885	1090	1060	371	359	471	453
28	888	851	840	786	911	893	1090	1080	407	363	486	465
29	897	858	882	848	894	867	1100	1090	---	---	509	486
30	909	873	884	858	896	867	1120	1100	---	---	522	498
31	896	872	---	---	903	893	1160	1120	---	---	570	522
MONTH	1040	809	884	671	914	731	1160	849	1160	359	570	369

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	584	551	612	582	827	675	797	753	669	648	918	881
2	552	459	653	606	834	819	879	741	707	672	926	885
3	434	368	659	635	833	813	810	749	720	672	941	902
4	369	326	632	600	846	824	803	743	713	695	902	866
5	320	284	600	543	855	836	854	713	722	702	891	861
6	315	287	594	543	863	842	749	614	713	662	932	885
7	351	317	528	444	864	857	606	563	698	654	963	938
8	363	351	539	503	872	857	603	552	692	566	948	917
9	381	365	519	485	884	864	569	554	686	617	1100	944
10	389	383	548	512	1050	876	593	569	888	696	1140	1120
11	386	380	563	543	1070	881	605	588	894	552	1250	960
12	387	380	563	545	873	797	632	582	572	515	954	834
13	399	386	584	563	822	774	710	635	600	540	833	806
14	417	402	593	581	986	838	705	632	569	551	845	819
15	446	417	614	593	984	879	641	614	597	548	869	836
16	467	432	641	617	897	875	662	581	656	602	875	836
17	494	464	648	641	911	879	702	663	701	654	863	807
18	512	495	657	648	927	890	713	684	734	653	950	777
19	516	507	677	659	887	818	705	681	767	741	807	771
20	548	687	687	674	893	819	698	678	786	752	800	687
21	584	545	681	666	888	840	740	711	773	699	797	578
22	627	587	681	669	975	842	860	719	696	681	861	534
23	654	630	719	671	975	789	884	639	737	690	578	551
24	678	654	738	719	776	698	801	717	761	740	579	543
25	680	662	785	737	696	621	689	491	827	756	594	566
26	669	653	798	783	732	653	486	444	815	768	615	564
27	732	659	795	771	749	710	498	461	954	768	674	616
28	732	645	780	753	701	662	549	500	905	774	740	669
29	642	587	767	741	747	683	575	551	873	795	789	729
30	612	590	752	663	762	702	573	444	935	878	---	---
31	---	---	708	663	---	---	660	443	987	921	---	---
MONTH	732	284	798	444	1070	621	884	443	987	515	1250	534
YEAR	1250	284										

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.8	7.8	8.1	8.0	7.9	7.7	8.0	8.0	7.9	7.8	7.7	7.7
2	7.9	7.8	8.2	7.8	7.9	7.8	8.1	8.0	7.9	7.6	7.7	7.6
3	7.9	7.8	8.3	8.2	7.8	7.7	8.1	8.0	7.8	7.7	7.9	7.6
4	8.1	7.8	8.2	8.1	---	---	8.1	8.0	7.6	7.7	7.9	7.9
5	8.1	7.9	8.1	8.1	---	---	8.0	8.0	7.8	7.7	7.9	7.8
6	7.9	7.8	8.2	8.1	---	---	7.8	7.8	7.9	7.8	8.0	7.9
7	7.8	7.8	8.2	8.1	---	---	7.8	7.8	7.8	7.8	8.0	7.9
8	7.8	7.5	8.2	8.1	---	---	7.8	7.7	7.8	7.8	8.0	7.9
9	7.8	7.7	8.2	8.1	---	---	7.8	7.8	7.8	7.8	8.1	7.9
10	7.8	7.8	8.3	7.9	---	---	7.9	7.8	7.8	7.7	8.1	8.0
11	7.9	7.8	7.9	7.9	---	---	7.9	7.8	7.8	7.7	8.2	7.9
12	7.9	7.9	7.9	7.8	---	---	7.9	7.9	7.8	7.7	8.1	8.0
13	7.9	7.8	7.9	7.8	---	---	7.9	7.8	7.8	7.8	8.1	7.8
14	8.2	7.9	7.9	7.8	---	---	7.9	7.9	7.8	7.7	7.9	7.8
15	8.3	8.1	7.9	7.8	---	---	7.9	7.9	---	---	7.9	7.7
16	8.2	8.2	7.9	7.8	---	---	7.9	7.8	---	---	7.9	7.6
17	---	---	---	---	---	---	7.8	7.6	7.7	7.6	7.8	7.7
18	---	---	---	---	---	---	7.9	7.8	7.8	7.7	7.8	7.7
19	---	---	---	---	---	---	7.8	7.7	7.8	7.7	7.7	7.6
20	---	---	---	---	---	---	7.8	7.7	7.8	7.7	7.7	7.7
21	---	---	---	---	8.0	7.8	7.8	7.7	7.7	7.6	7.8	7.6
22	8.4	8.3	---	---	8.1	8.0	7.8	7.7	7.8	7.6	7.7	7.7
23	8.4	8.2	---	---	8.1	8.1	7.7	7.7	7.9	7.7	7.8	7.6
24	8.4	8.2	7.9	7.9	8.1	8.0	7.8	7.7	7.9	7.6	7.7	7.6
25	8.2	8.1	8.0	7.9	8.1	8.1	7.8	7.7	7.7	7.6	7.7	7.6
26	8.1	7.9	8.0	7.9	8.1	8.1	7.8	7.7	7.6	7.5	7.8	7.6
27	8.0	7.8	8.0	7.9	8.2	8.1	8.0	7.6	7.5	7.5	7.8	7.6
28	8.1	8.0	7.9	7.8	8.2	8.1	8.0	7.9	7.6	7.4	7.8	7.7
29	8.2	8.0	7.8	7.8	8.1	8.0	7.9	7.9	---	---	7.8	7.7
30	8.1	8.1	7.8	7.7	8.1	8.0	7.9	7.6	---	---	7.7	7.6
31	8.1	8.1	---	---	8.1	8.0	7.9	7.7	---	---	7.6	7.5
MONTH	8.4	7.5	8.3	7.7	8.2	7.7	8.1	7.6	7.9	7.4	8.2	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.1	7.9	8.4	8.0	8.5	8.2	7.9	7.4	8.4	7.8
2	---	---	8.3	8.0	7.9	7.8	8.7	8.2	8.3	7.9	8.2	7.8
3	---	---	8.4	7.9	7.8	7.6	8.6	8.2	8.5	7.8	7.9	7.7
4	---	---	7.9	7.7	7.6	7.4	8.6	8.3	8.7	8.1	8.0	7.5
5	---	---	7.9	7.6	7.4	7.3	8.0	7.5	8.6	8.1	7.9	7.6
6	---	---	8.1	7.6	7.8	7.2	7.4	7.3	8.6	8.1	7.7	7.4
7	---	---	7.7	7.5	8.0	7.6	7.4	7.1	8.5	8.1	8.0	7.3
8	---	---	7.7	7.5	8.0	7.9	7.1	6.9	8.2	7.6	7.9	7.5
9	---	---	7.6	7.5	8.4	7.9	7.0	6.9	7.5	7.4	8.4	7.6
10	---	---	7.8	7.5	8.4	8.2	7.0	6.9	7.6	7.4	8.3	7.9
11	---	---	8.0	7.8	8.3	7.7	7.3	6.9	7.5	7.3	8.3	7.7
12	7.8	7.5	8.1	7.8	7.9	7.6	7.2	7.1	7.4	7.3	8.1	7.6
13	8.0	7.7	8.3	8.0	8.0	7.6	7.3	7.1	7.4	7.2	8.4	7.8
14	7.7	7.7	8.5	8.2	8.0	7.8	7.2	6.8	7.6	7.3	8.4	8.0
15	7.8	7.7	8.5	8.2	8.1	7.9	7.5	7.2	7.6	7.3	8.2	7.8
16	7.9	7.7	8.7	8.3	8.6	7.9	7.8	7.4	7.7	7.2	7.8	7.6
17	7.8	7.7	8.9	8.4	8.7	8.3	7.8	7.6	7.6	7.5	7.7	7.4
18	8.1	7.6	9.0	8.7	8.8	8.4	7.9	7.8	7.6	7.3	7.8	7.5
19	8.0	7.8	8.9	8.6	8.5	8.2	8.1	7.9	7.5	7.2	7.7	7.6
20	8.0	7.7	8.8	8.6	8.6	8.1	8.3	7.8	7.7	7.2	7.6	7.5
21	7.9	7.6	8.8	8.4	8.5	8.3	8.4	8.2	7.8	7.4	7.5	7.3
22	8.1	7.6	8.7	8.4	8.6	8.3	8.5	8.3	8.1	7.6	7.5	7.3
23	8.2	8.0	8.5	8.1	8.6	8.2	8.3	7.6	8.2	7.8	7.5	7.3
24	8.0	7.7	8.0	7.8	8.2	7.9	8.1	7.4	8.2	7.9	7.6	7.4
25	7.8	7.6	8.1	7.8	8.0	7.8	7.3	7.0	8.3	7.7	7.5	7.4
26	7.8	7.5	8.4	8.0	7.9	7.7	7.0	6.9	8.3	7.8	7.7	7.4
27	8.0	7.4	8.4	8.1	8.4	7.8	7.0	6.9	8.5	7.8	7.9	7.5
28	7.8	7.6	8.4	8.2	7.9	7.8	7.2	6.9	8.6	8.1	7.7	7.4
29	7.7	7.4	8.3	8.2	8.3	7.5	7.5	7.1	8.5	8.1	8.0	7.4
30	8.0	7.4	8.4	8.2	8.6	8.3	---	---	8.4	8.1	---	---
31	---	---	8.7	8.2	---	---	---	---	8.3	8.0	---	---
MONTH	8.2	7.4	9.0	7.5	8.8	7.2	8.7	6.8	8.7	7.2	8.4	7.3
YEAR	9.0	6.8										

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	17.0	8.0	7.5	4.5	3.5	1.0	0.5	1.5	1.0	4.0	3.5
2	17.5	17.0	8.0	7.5	3.5	3.0	1.0	1.0	2.0	1.0	4.0	3.0
3	17.5	17.0	8.5	8.0	3.0	2.5	1.0	1.0	2.0	1.5	4.0	3.5
4	18.5	17.0	8.0	7.5	---	---	1.5	1.0	2.0	1.5	4.5	4.0
5	19.0	17.5	7.5	7.0	---	---	1.0	0.5	2.0	1.5	5.5	4.5
6	18.5	18.0	7.5	6.5	---	---	0.5	0.5	1.5	1.0	5.5	5.0
7	18.0	17.5	7.5	6.5	---	---	1.0	0.5	1.5	1.5	5.5	5.0
8	17.5	17.5	6.5	6.0	---	---	1.0	0.5	1.5	1.0	6.0	4.5
9	17.0	16.0	6.5	6.0	1.5	1.0	0.5	0.5	1.5	1.5	6.5	5.0
10	16.0	15.5	6.5	6.0	2.0	1.0	1.0	0.5	2.0	1.5	7.5	6.0
11	16.0	15.5	6.0	5.5	2.0	1.5	1.0	0.5	2.0	1.5	9.0	7.0
12	15.5	15.0	6.0	5.5	2.5	2.0	1.0	0.5	2.0	1.5	9.5	8.5
13	15.5	15.0	6.0	5.5	2.5	2.0	1.0	0.5	1.5	1.5	10.0	9.5
14	15.0	14.5	6.0	5.5	2.5	1.5	1.0	1.0	1.5	1.5	10.0	9.5
15	16.0	14.5	6.0	5.5	2.5	1.5	1.0	1.0	---	---	10.5	9.5
16	15.0	15.0	6.0	5.0	2.5	1.5	1.0	0.5	---	---	10.5	10.0
17	---	---	---	---	2.5	2.0	0.5	0.5	1.0	0.5	10.5	10.0
18	---	---	---	---	3.0	2.0	1.0	0.5	1.0	0.5	10.0	9.0
19	---	---	---	---	3.5	2.5	1.0	0.5	1.0	0.5	9.0	8.0
20	---	---	---	---	3.5	2.5	1.0	0.5	1.0	1.0	8.0	7.0
21	---	---	---	---	2.5	2.5	1.0	0.5	1.5	1.0	7.5	7.0
22	11.5	10.5	---	---	2.5	2.0	1.0	0.5	2.0	1.0	7.5	7.0
23	10.5	10.0	---	---	2.0	1.0	0.5	0.5	3.0	1.5	7.5	6.5
24	10.0	10.0	4.0	3.5	1.5	1.0	1.0	0.5	3.5	3.0	7.0	6.5
25	10.0	9.5	4.0	3.5	1.0	1.0	1.0	0.5	3.0	1.5	7.5	6.5
26	10.0	9.0	4.5	3.5	1.0	1.0	0.5	0.5	3.5	3.0	7.5	6.5
27	9.5	9.0	5.5	4.5	2.0	1.0	1.5	0.5	3.5	3.0	8.0	7.0
28	9.0	8.5	5.5	5.5	2.0	1.0	1.5	1.0	4.0	3.0	9.5	8.0
29	8.5	6.0	5.5	5.0	1.0	1.0	1.5	1.0	---	---	11.0	9.0
30	8.5	8.0	5.0	4.5	1.0	1.0	1.5	1.0	---	---	13.0	11.0
31	8.0	8.0	---	---	1.0	1.0	1.5	1.0	---	---	13.5	13.0
MONTH	19.0	6.0	8.5	3.5	4.5	1.0	1.5	0.5	4.0	0.5	13.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	12.5	15.0	13.5	26.0	25.5	26.0	25.5	25.5	24.0	27.0	25.5
2	13.0	12.5	16.0	15.0	25.5	25.0	26.5	25.0	26.0	25.0	26.5	26.0
3	12.5	12.0	17.0	15.5	25.5	24.0	26.5	25.0	26.5	25.0	26.5	26.5
4	12.0	12.0	17.5	16.5	25.5	23.5	25.5	25.0	28.0	25.5	27.5	26.5
5	12.0	11.0	18.0	17.0	24.0	23.5	25.5	24.5	28.0	26.5	27.0	26.5
6	11.0	9.5	18.5	17.5	24.0	23.5	26.0	25.0	28.0	26.5	27.0	26.5
7	9.5	9.0	18.5	18.0	22.5	21.5	27.0	25.5	28.0	27.0	27.0	26.0
8	9.5	9.0	19.0	18.0	21.5	20.5	27.5	26.5	27.5	25.5	26.5	25.5
9	9.5	8.5	19.0	17.0	20.5	20.0	28.5	27.0	26.0	25.5	27.0	25.5
10	10.0	8.5	16.5	16.0	20.0	19.0	28.0	27.5	25.5	25.5	27.0	25.5
11	11.5	9.5	16.5	15.0	19.5	19.0	28.0	27.5	25.5	24.5	28.0	24.5
12	12.5	10.5	16.5	15.0	20.5	19.0	27.5	27.0	25.0	24.5	26.0	24.0
13	13.5	12.0	17.5	16.0	21.0	19.5	27.5	26.5	25.0	24.5	26.0	24.0
14	14.5	13.0	18.5	17.0	21.0	20.5	27.5	26.5	24.5	24.0	24.0	23.5
15	15.0	14.0	19.5	17.5	21.5	21.0	28.5	27.0	25.0	24.5	24.0	23.0
16	15.5	14.5	20.5	18.5	23.0	21.0	28.5	28.0	25.0	24.5	23.0	22.5
17	15.5	15.0	21.0	19.5	24.0	22.0	29.0	28.5	26.0	25.0	22.5	21.5
18	16.0	15.0	22.0	20.5	25.0	23.5	29.0	28.5	25.5	25.0	22.0	21.5
19	16.0	15.5	23.5	21.5	25.0	24.0	30.0	29.0	25.0	24.5	22.5	22.0
20	16.5	15.5	24.0	22.5	25.5	25.0	30.5	29.5	24.5	24.0	22.0	21.5
21	17.5	16.0	25.0	23.5	26.0	24.5	30.5	29.5	24.0	23.5	21.5	20.5
22	18.0	17.5	25.0	24.0	25.5	24.5	30.0	29.5	23.5	22.5	20.5	20.0
23	18.0	17.5	25.5	24.5	24.5	23.5	29.5	28.0	23.5	22.5	20.5	19.5
24	18.0	17.0	25.5	25.0	24.0	23.5	28.5	27.0	24.0	23.0	21.5	19.5
25	17.0	16.0	25.5	25.0	24.0	23.5	26.5	25.5	23.5	22.5	20.5	20.0
26	15.5	14.0	25.5	24.5	24.5	23.5	25.5	25.0	24.0	22.5	21.5	20.5
27	15.0	13.5	25.5	24.5	25.5	24.0	25.5	24.5	25.5	23.5	24.0	20.5
28	14.5	14.0	25.5	24.5	25.5	24.5	25.5	24.5	25.5	23.5	21.5	20.5
29	14.5	13.0	26.0	25.0	26.0	25.0	25.5	24.5	25.5	24.5	22.5	19.5
30	14.5	13.0	26.0	25.0	26.0	25.0	24.0	23.0	25.5	25.0	---	---
31	---	---	27.5	25.5	---	---	24.5	22.5	26.5	25.5	---	---
MONTH	18.0	8.5	27.5	13.5	26.0	19.0	30.5	22.5	28.0	22.5	28.0	19.5
YEAR	30.5	0.5										

03150000 MUSKINGUM RIVER AT MCCONNELSVILLE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.6	9.0	11.1	10.9	11.3	9.4	12.5	12.0	10.5	10.0	---	---
2	9.9	9.2	11.3	11.0	12.1	10.9	12.4	11.8	12.5	10.5	---	---
3	10.5	9.9	11.5	11.1	12.7	12.3	13.0	11.9	10.9	10.3	13.5	11.5
4	12.4	10.0	11.5	11.3	---	---	12.6	11.8	10.6	10.3	12.7	10.8
5	13.1	10.2	11.5	11.4	---	---	12.5	11.4	11.1	10.4	11.9	11.0
6	11.2	10.1	11.6	11.4	---	---	12.2	11.7	11.2	10.7	11.9	10.9
7	10.0	9.1	11.8	11.6	---	---	12.1	11.6	11.2	10.7	12.1	11.2
8	9.3	8.6	12.3	11.9	---	---	12.0	11.4	11.3	10.5	11.7	10.8
9	9.3	8.6	12.3	11.7	12.7	11.9	11.8	11.4	11.0	10.6	12.0	10.7
10	9.5	8.8	12.1	9.9	12.8	11.7	11.6	11.2	10.7	10.4	11.3	10.3
11	10.2	9.4	10.3	9.8	12.5	12.0	11.8	11.5	10.8	10.4	10.9	10.0
12	11.3	10.2	10.6	9.8	12.4	11.0	11.9	11.6	10.7	10.3	10.1	9.7
13	11.6	11.1	10.7	9.8	11.6	10.7	12.0	11.5	10.9	10.5	10.4	9.6
14	11.7	7.3	10.6	9.9	11.9	10.8	11.8	11.3	11.0	10.6	11.2	10.4
15	8.7	7.5	11.4	10.0	11.9	10.8	11.8	11.3	---	---	11.3	10.9
16	---	---	11.0	10.3	12.0	11.0	11.9	11.0	---	---	---	---
17	---	---	---	---	11.6	10.6	11.7	11.1	13.7	12.7	---	---
18	---	---	---	---	11.3	10.2	11.6	11.1	13.7	13.1	---	---
19	---	---	---	---	11.4	10.2	12.2	11.2	13.2	12.6	---	---
20	---	---	---	---	10.6	10.2	12.2	11.7	13.0	12.7	---	---
21	---	---	---	---	12.0	10.6	12.0	11.7	12.8	11.9	---	---
22	11.6	10.6	---	---	12.0	11.0	12.0	11.7	12.2	11.1	---	---
23	11.8	10.6	---	---	14.4	11.2	12.1	11.7	11.6	10.1	---	---
24	11.2	10.5	11.6	10.5	14.3	13.2	11.7	11.6	10.7	9.6	---	---
25	10.5	10.0	10.9	10.1	13.9	13.1	11.7	11.5	12.2	10.5	---	---
26	10.4	10.0	10.8	9.8	13.4	12.1	11.6	11.5	---	---	---	---
27	10.2	10.0	9.8	8.9	12.6	10.9	11.8	10.6	---	---	---	---
28	10.6	10.1	9.7	8.6	12.4	10.7	10.9	10.2	---	---	---	---
29	11.6	10.6	9.3	8.5	13.0	12.0	10.9	10.1	---	---	---	---
30	11.2	11.0	9.6	8.8	12.5	11.9	10.5	10.1	---	---	11.2	10.8
31	11.1	10.8	---	---	12.5	12.0	10.4	9.7	---	---	11.4	10.8
MONTH	13.1	7.3	12.3	8.5	14.4	9.4	13.0	9.7	13.7	9.6	13.5	9.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.8	10.2	8.9	8.5	6.7	6.0	7.4	6.3	6.5	6.3	7.2	5.5
2	10.5	9.8	8.4	8.3	7.3	5.8	7.6	6.2	7.7	6.4	---	---
3	10.3	9.7	8.2	8.0	7.4	7.0	6.9	6.3	8.5	6.5	---	---
4	10.2	9.7	7.9	7.6	7.4	6.8	6.9	5.5	9.1	6.2	---	---
5	10.2	9.7	7.6	7.4	7.2	6.7	---	---	8.3	6.1	---	---
6	11.0	10.7	7.5	7.3	7.7	6.5	7.4	6.7	8.3	6.5	---	---
7	11.3	10.9	7.5	7.1	8.2	7.7	6.8	5.8	6.7	5.4	---	---
8	11.4	11.1	7.5	7.2	8.4	8.1	6.1	5.2	5.5	4.4	---	---
9	11.9	11.1	7.8	7.4	8.2	7.3	5.6	4.9	8.0	5.2	---	---
10	11.7	10.5	9.1	7.8	8.4	7.7	5.5	4.8	7.9	6.9	---	---
11	11.0	9.9	9.3	9.0	8.1	7.7	6.3	4.8	7.5	7.1	---	---
12	10.3	9.6	9.3	8.9	8.1	7.3	5.7	4.9	7.3	6.8	---	---
13	10.3	9.1	9.0	8.7	7.4	6.9	5.7	4.9	7.1	6.7	---	---
14	10.0	9.1	9.1	8.6	7.4	6.7	6.9	4.9	7.1	6.6	6.2	5.1
15	---	---	8.7	8.4	7.0	5.9	7.2	6.2	7.7	6.4	5.7	5.2
16	---	---	8.6	8.4	7.7	5.8	7.0	5.8	6.5	6.3	5.6	5.1
17	---	---	8.7	8.3	7.2	6.8	6.6	5.1	7.4	5.9	6.1	5.3
18	---	---	8.6	8.2	7.4	6.2	6.4	5.1	7.3	6.6	6.5	5.8
19	---	---	8.3	7.8	7.8	7.1	6.4	5.1	7.4	6.5	6.3	6.0
20	---	---	7.9	7.3	8.1	6.9	6.7	4.9	7.7	6.6	6.2	5.9
21	---	---	7.8	7.0	8.3	7.6	6.8	5.4	8.1	7.0	6.3	6.2
22	---	---	7.7	6.8	8.4	7.6	6.1	5.2	8.0	6.8	6.6	6.3
23	---	---	7.0	6.1	8.4	7.5	6.9	4.9	7.9	6.7	---	---
24	---	---	7.1	6.6	8.4	7.9	7.7	6.7	---	---	---	---
25	---	---	7.8	6.9	8.1	7.4	6.6	6.2	8.4	7.5	---	---
26	---	---	8.1	7.7	7.6	6.5	6.8	6.3	8.4	5.1	---	---
27	---	---	8.1	7.5	7.0	5.8	6.8	6.2	7.4	5.4	---	---
28	9.2	8.7	8.0	7.3	7.5	5.8	6.7	6.2	8.7	6.2	---	---
29	8.9	8.7	7.6	6.9	7.5	7.0	6.8	6.1	7.8	6.0	---	---
30	9.1	8.7	7.0	6.1	8.3	6.6	6.5	5.8	---	---	---	---
31	---	---	6.7	6.2	---	---	6.4	5.8	---	---	---	---
MONTH	11.9	8.7	9.3	6.1	8.4	5.8	7.7	4.8	9.1	4.4	7.2	5.1
YEAR	14.4	4.4										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

RESERVOIRS IN MUSKINGUM RIVER BASIN, OH

03119500 BOLIVAR RESERVOIR NEAR BOLIVAR.--Lat 40°38'56", long 81°25'57", Tuscarawas County, Hydrologic Unit 05040001, in gage house of dam on Sandy Creek, 1.1 mi (1.8 km) east of Bolivar. DRAINAGE AREA, 504 mi^2 (1,305 km^2). PERIOD OF RECORD, June 1938 to current year. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 895.0 ft (272.80 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Reservoir is formed by earthfill dam completed Nov. 15, 1937. Usable capacity 149,500 acre-ft (184 hm^3) between elevations 895.0 ft (272.80 m) (lowest outlet), and 962.0 ft (293.22 m) (crest of spillway). Dead storage below elevation 895.0 ft (272.80 m), 113 acre-ft (139,000 m^3). Figures given herein represent usable contents. Reservoir is used for flood control only. There are no gates on spillway and all regulation is done by gates in conduits through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 63,320 acre-ft (78.1 hm^3) Jan. 26, 1959, elevation, 944.01 ft (287.734 m); minimum, 62 acre-ft (76,400 m^3) Oct. 9, 1933, elevation, 896.30 ft (273.192 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 39,750 acre-ft (49.0 hm^3) Apr. 8, elevation, 935.90 ft (285.262 m); minimum, 121 acre-ft (149,000 m^3) June 23, 24, 25, 27, 28, Sept. 12, elevation, 897.20 ft (273.467 m).

03120000 LEESVILLE LAKE NEAR LEESVILLE.--Lat 40°28'15", long 81°11'40", in E 1/2 sec. 36, T.13 N., R.6 W., Carroll County, Hydrologic Unit 05040001, in gate house of dam on McGuire Creek, 1.4 mi (2.3 km) northeast of Leesville. DRAINAGE AREA, 48.3 mi^2 (125 km^2). PERIOD OF RECORD, April 1938 to current year. Prior to October 1971 published as Leesville Reservoir. Month-end contents prior to September 1939, published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 928.0 ft (282.85 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Lake is formed by earthfill dam completed Oct. 22, 1937. Usable capacity 37,070 acre-ft (45.7 hm^3) between elevations 928.0 ft (282.85 m) (lowest outlet), and 977.5 ft (297.94 m) (crest of spillway), of which 19,170 acre-ft (23.6 hm^3) is in the conservation pool. Dead storage below elevation 928.0 ft (282.85 m), 329 acre-ft (406,000 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in conduit through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 26,430 acre-ft (32.6 hm^3) Apr. 17, 1948, elevation, 969.59 ft (295.531 m); minimum, 41 acre-ft (50,600 m^3) Oct. 9-25, 1939, elevation, 928.38 ft (282.970 m), but may have been less during period Sept. 18-24, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 21,080 acre-ft (26.0 hm^3) June 18, elevation, 964.87 ft (294.092 m); minimum, 11,340 acre-ft (14.0 hm^3) Oct. 19, Jan. 9, Feb. 10, 11, elevation, 954.02 ft (290.785 m).

03121000 ATWOOD LAKE NEAR NEW CUMBERLAND.--Lat 40°31'34", long 81°17'09", in SE 1/4 sec, 28, T.15 N., R.7 W., Tuscarawas County, Hydrologic Unit 05040001, in gate house of dam on Indian Fork, 1.5 mi (2.4 km) southeast of New Cumberland. DRAINAGE AREA, 69.9 mi^2 (181 km^2). PERIOD OF RECORD, June 1938 to current year. Prior to October 1971 published as Atwood Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 890.0 ft (271.27 m) above mean sea level; gage readings have been reduced to elevations above mean sea level. Prior to Oct. 11, 1936, nonrecording gage at same site and datum.

Lake is formed by earthfill dam completed Sept. 23, 1937. Usable capacity 49,690 acre-ft (61.3 hm^3) between elevations 890.0 ft (271.27 m) (lowest outlet), and 941.0 ft (286.82 m) (crest of spillway), of which 23,590 acre-ft (29.1 hm^3) is in the conservation pool. Dead storage below elevation 890.0 ft (271.27 m), 8 acre-ft (9,860 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in conduits through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 35,210 acre-ft (43.4 hm^3) Feb. 8, 1952, elevation, 934.51 ft (284.839 m); minimum, 2.2 acre-ft (2,710 m^3) Jan. 8, 9, 1940, elevation, 890.36 ft (271.382 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,170 acre-ft (36.0 hm^3) Apr. 8, elevation, 931.32 ft (283.866 m); minimum, 15,860 acre-ft (19.6 hm^3) Jan. 31, Feb. 1, 2, elevation, 922.39 ft (281.144 m).

03122000 DOVER LAKE NEAR DOVER.--Lat 40°33'29", long 81°24'46", in SW 1/4 sec. 6, T.9 N., R.1 W., Tuscarawas County, Hydrologic Unit 05040001, in gate house of dam on Tuscarawas River, 4.2 mi (6.8 km) northeast of Dover. DRAINAGE AREA, 1,404 mi^2 (3,636 km^2). PERIOD OF RECORD, June 1938 to current year. Prior to October 1971 published as Dover Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 858.0 ft (261.52 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level. Prior to Sept. 22, 1938, nonrecording gage at same site and datum.

Lake is formed by concrete dam completed Nov. 29, 1937. Usable capacity 203,000 acre-ft (250 hm^3) between elevations 862.0 ft (262.74 m) (lowest outlet), and 916.0 ft (279.20 m) (crest of spillway), of which 1,000 acre-ft (1.23 hm^3) is in conservation pool. No dead storage. Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in conduits through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 109,000 acre-ft (134 hm^3) July 12, 1969, elevation, 905.00 ft (275.844 m); no contents several days during most years.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 10,070 acre-ft (12.4 hm^3) Apr. 5, 6, elevation, 883.20 ft (269.199 m); minimum, 0.1 acre-ft (123 m^3) June 1, elevation, 865.02 ft (263.656 m).

03123500 BEACH CITY LAKE NEAR BEACH CITY.--Lat 40°38'06", long 81°33'30", in T.10 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, in gate house of dam on Sugar Creek, 1.6 mi (2.6 km) southeast of Beach City. DRAINAGE AREA, 300 mi^2 (777 km^2). PERIOD OF RECORD, June 1938 to current year. Prior to October 1971 published as Beach City Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 931.0 ft (283.77 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level. Prior to Feb. 4, 1939, nonrecording gage at same site and datum.

Lake is formed by earthfill dam completed Aug. 13, 1937. Usable capacity 71,650 acre-ft (88.3 hm^3) between elevations 931.0 ft (283.77 m) (lowest outlet), and 976.5 ft (297.64 m) (crest of spillway), of which 1,700 acre-ft (2.10 hm^3) is in conservation pool. No dead storage. Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in conduits through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 70,120 acre-ft (86.5 hm^3) July 6, 1969, elevation, 976.25 ft (297.561 m); minimum, 1.1 acre-ft (1,360 m^3) several days in September and October 1939, elevation, 931.60 ft (283.952 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 14,520 acre-ft (17.9 hm^3) Apr. 6, elevation, 960.72 ft (292.827 m); minimum, 1,900 acre-ft (2.34 hm^3) June 1, elevation, 948.43 ft (289.081 m).

RESERVOIRS IN MUSKINGUM RIVER BASIN, OH--Continued

03125500 **PIEDMONT LAKE AT PIEDMONT**.--Lat 40°11'31", long 81°12'57", in SE 1/4 sec. 35, T.10 N., R.6 W., Harrison County, Hydrologic Unit 05040001, in gate house of dam on Stillwater Creek, 0.4 mi (0.6 km) west of Piedmont. DRAINAGE AREA, 85.9 mi^2 (222 km^2). PERIOD OF RECORD, May 1938 to current year. Prior to October 1971 published as Piedmont Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 881.75 ft (268.757 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Lake is formed by earthfill dam completed May 22, 1937. Usable capacity 64,990 acre-ft (80.1 hm^3) between elevations 881.75 ft (lowest outlet), and 924.6 ft (281.82 m) (crest of spillway), of which 33,500 acre-ft (41.3 hm^3) is in the conservation pool. Dead storage below elevation 881.75 ft (268.757 m), 71 acre-ft (87,500 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in tunnel through abutment of dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 46,650 acre-ft (57.5 hm^3) June 11, 12, 1947, elevation, 918.33 ft (279.907 m); minimum, 26 acre-ft (32,100 m^3) Sept. 18-25, 1939, elevation, 882.25 ft (268.910 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 39,350 acre-ft (48.5 hm^3) Apr. 7, elevation, 915.48 ft (279.038 m); minimum, 22,170 acre-ft (27.3 hm^3) Jan. 2, 3, elevation, 907.49 ft (276.603 m).

03126500 **CLENDENING LAKE NEAR TIPPECANOE**.--Lat 40°16'10", long 81°16'43", in NW 1/4 sec. 16, T.12 N., R.7 W., Harrison County, Hydrologic Unit 05040001, in gate house of dam on Brushy Fork, 0.6 mi (1.0 km) east of Tippecanoe. DRAINAGE AREA, 69.3 mi^2 (179 km^2). PERIOD OF RECORD, June 1938 to current year. Prior to October 1971 published as Clendening Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 862.00 ft (262.736 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level. Prior to July 11, 1938, nonrecording gage at same site and datum.

Lake is formed by earthfill dam completed Nov. 1, 1937. Usable capacity 53,970 acre-ft (66.5 hm^3) between elevations 862.0 ft (262.74 m) (lowest outlet), and 910.5 ft (277.52 m) (crest of spillway), of which 26,470 acre-ft (32.6 hm^3) is in the conservation pool. Dead storage below elevation 862.0 ft (262.74 m) 27 acre-ft (33,300 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in tunnel through abutment of dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 38,060 acre-ft (46.9 hm^3) Feb. 7, 1952, elevation, 903.85 ft (275.493 m); minimum, 5.9 acre-ft (7,270 m^3) Nov. 4, 1938, elevation, 862.33 ft (262.838 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 31,510 acre-ft (38.9 hm^3) Apr. 8, elevation, 900.65 ft (274.518 m); minimum, 18,220 acre-ft (22.5 hm^3) Jan. 3, 4, elevation, 892.82 ft (272.132 m).

03128000 **TAPPAN LAKE NEAR TAPPAN**.--Lat 40°21'24", long 81°13'38", in NW 1/4 sec. 4, T.13 N., R.7 W., Harrison County, Hydrologic Unit 05040001, in gate house of dam on Little Stillwater Creek, 0.9 mi (1.4 km) west of Tappan. DRAINAGE AREA.--71.1 mi^2 (184 km^2). PERIOD OF RECORD, May 1938 to current year. Prior to October 1971 published as Tappan Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 870.0 ft (265.18 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Lake is formed by earthfill dam completed Oct. 24, 1936. Usable capacity 61,500 acre-ft (75.8 hm^3) between elevations 870.0 ft (265.18 m) (lowest outlet), and 909.0 ft (277.06 m) (crest of spillway), of which 35,070 acre-ft (43.2 hm^3) is in conservation pool. Dead storage below elevation 870.0 ft (265.18 m), 46 acre-ft (56,700 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in tunnel through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 48,440 acre-ft (59.7 hm^3) Feb. 5, 6, 1952, elevation, 904.53 ft (275.701 m); no contents Sept. 29, 1939.

EXTREMES FOR CURRENT YEAR: Maximum contents, 39,860 acre-ft (49.1 hm^3) Apr. 8, elevation, 901.27 ft (274.707 m); minimum, 23,430 acre-ft (28.9 hm^3) Feb. 2-12, elevation, 893.88 ft (272.455 m).

03129500 **CHARLES MILL LAKE NEAR MIFFLIN**.--Lat 40°44'26", long 82°21'47", in NE 1/4 sec. 35, T.23 N., R.17 W., Ashland County, Hydrologic Unit 05040002, in gate house of dam on Black Fork, 2.5 mi (4.0 km) south of Mifflin. DRAINAGE AREA, 215 mi^2 (557 km^2). PERIOD OF RECORD, April 1938 to current year. Prior to October 1971 published as Charles Mill Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 987.0 ft (300.84 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Lake is formed by earthfill dam completed Aug. 17, 1936. Usable capacity 87,690 acre-ft (108 hm^3) between elevations 987.0 ft (300.84 m) (lowest outlet), and 1,020.0 ft (310.90 m) (crest of spillway), of which 7,090 acre-ft (8.74 hm^3) is in the conservation pool. Dead storage below elevation 987.0 ft (300.84 m), 310 acre-ft (382,000 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in conduits through dam or through bypass gate around conservation weir. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 53,480 acre-ft (65.9 hm^3) Jan. 25, 1959, elevation, 1,013.53 ft (308.924 m); minimum, 733 acre-ft (904,000 m^3) Dec. 24, 1965, elevation, 989.89 ft (301.718 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 17,740 acre-ft (21.9 hm^3) Apr. 6, elevation, 1,003.10 ft (305.745 m); minimum, 2,420 acre-ft (2.98 hm^3) Dec. 22-23, elevation, 992.79 ft (302.602 m).

03133000 **PLEASANT HILL LAKE NEAR PERRYSVILLE**.--Lat 40°37'26", long 82°19'33", in NE 1/4 sec. 7, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, in gate house of dam on Clear Fork, 2.5 mi (4.0 km) south of Perrysville. DRAINAGE AREA, 197 mi^2 (510 km^2). PERIOD OF RECORD, May 1938 to current year. Prior to October 1971 published as Pleasant Hill Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 971.75 ft (296.189 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Lake is formed by earthfill dam completed Feb. 1, 1938. Usable capacity 87,640 acre-ft (108 hm^3) between elevations 971.75 ft (296.189 m) (lowest outlet), and 1,065.0 ft (324.61 m) (crest of spillway), of which 13,510 acre-ft (16.7 hm^3) is in the conservation pool. Dead storage below elevation 971.75 ft (296.189 m), 12 acre-ft (14,800 m^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in tunnel through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 43,530 acre-ft (53.7 hm^3) Jan. 23, 1959, elevation, 1,044.01 ft (318.214 m); minimum, 74 acre-ft (91,200 m^3) May 8, 1938, elevation, 976.63 ft (297.677 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 21,310 acre-ft (26.3 hm^3) Apr. 5, elevation, 1,028.04 ft (313.347 m); minimum, 7,940 acre-ft (9.79 hm^3) Jan. 18, 19, elevation, 1,012.35 ft (308.564 m).

03134500 MOHICANVILLE RESERVOIR NEAR MOHICANVILLE.--Lat 40°43'28", long 82°09'08", in SE 1/4 sec. 34, T.21 N., R.15 W., Ashland County, Hydrologic Unit 05040002, in gate house of dam on Lake Fork, 2 mi (3 km) east of Mohicanville. DRAINAGE AREA, 271 mi^2 (702 km^2). PERIOD OF RECORD, May 1938 to current year. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 932.0 ft (284.07 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Reservoir is formed by earthfill dam completed Dec. 24, 1936. Usable capacity 102,000 acre-ft (126 hm^3) between elevations 932.0 ft (284.07 m) (lowest outlet), and 963.0 ft (293.52 m) (crest of spillway). Dead storage below elevation 932.0 ft (284.07 m), 18 acre-ft (22,200 m^3). Figures given herein represent usable contents. Reservoir is used for flood control only. There are no gates on spillway and all regulation is done by gates in conduits through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 96,330 acre-ft (119 hm^3) July 7, 1969, elevation, 962.35 ft (293.324 m); minimum, 9.9 acre-ft (12,200 m^3) several days in 1941, 1944, 1945; minimum elevation, 932.38 ft (284.109 m) several days in August, September, October, 1941.

EXTREMES FOR CURRENT YEAR: Maximum contents, 11,090 acre-ft (13.7 hm^3) Apr. 6, elevation, 947.28 ft (288.731 m); minimum, 37 acre-ft (45,621 m^3) several days in December, elevation, 933.28 ft (284.463 m).

03136300 NORTH BRANCH KOKOSING RIVER LAKE NEAR FREDERICKTOWN.--Lat 40°30'24", long 82°34'36", in SW 1/4 sec. 19, T.8 N., R.14 W., Knox County, Hydrologic Unit 05040003, at dam on North Branch Kokosing River, 2.5 mi (4.0 km) northwest of Fredericktown, and 3.0 mi (4.8 km) upstream from East Branch Kokosing River. DRAINAGE AREA, 44.5 mi^2 (115 km^2). PERIOD OF RECORD, July 1973 to current year. GAGE, Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers.

Lake is formed by earthfill dam, with uncontrolled saddle spillway; storage began June 1972. Usable capacity, 940 acre-ft (1.16 hm^3) between elevation, 1,108.0 ft (337.72 m) (invert of lowest outlet), and 1,121.0 ft (341.68 m) (uncontrolled entrance to outlet works). Dead storage below elevation, 1,108.0 ft (337.72 m), 103 acre-ft (127,000 m^3). Additional flood retention capacity 13,840 acre-ft (17.1 hm^3) between 1,121.0 ft (341.68 m) and 1,146.0 ft (349.30 m) (crest of spillway). Figures given herein represent usable contents. Reservoir is used for flood control, recreation, and conservation. Lowest outlet is normally closed to maintain a pool elevation of 1,121.0 ft (341.68 m). Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 5,620 acre-ft (6.93 hm^3) Feb. 24, 1975; elevation, 1,134.98 ft (345.942 m); minimum, 797 acre-ft (0.982 hm^3) Mar. 3, 1976, elevation, 1,120.01 ft (341.379 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,480 acre-ft (1.82 hm^3) Mar. 13, elevation, 1,123.88 ft (342.559 m); minimum, 779 acre-ft (0.961 hm^3) Apr. 10, elevation, 1,119.86 ft (341.333 m).

03138000 MOHAWK RESERVOIR NEAR NELLIE.--Lat 40°21'12", long 82°05'12", in SW 1/4 sec. 6, T.6 N., R.8 W., Coshocton County, Hydrologic Unit 05040003, in gate house of dam on Walhonding River, 1.5 mi (2.4 km) northwest of Nellie. DRAINAGE AREA, 1,504 mi^2 (3,895 km^2). PERIOD OF RECORD, April 1938 to current year. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 799.2 ft (243.60 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Reservoir is formed by earthfill dam completed Sept. 22, 1937. Usable capacity 284,900 acre-ft (351 hm^3) between elevations 799.2 ft (243.60 m) (lowest outlet), and 890.0 ft (271.27 m) (crest of spillway). Dead storage below elevation 799.2 ft (243.60 m), 59 acre-ft (72,700 m^3). Figures given herein represent usable contents. Reservoir is used for flood control only. There are no gates on spillway and all regulation is done by gates in tunnels through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 176,000 acre-ft (217 hm^3) Jan. 25, 1959, elevation, 873.94 ft (266.377 m); minimum, 44 acre-ft (54,300 m^3) Sept. 21, Oct. 4, 1955; minimum elevation, 800.35 ft (243.947 m) Oct. 4, 1955, from graph based on gage readings.

EXTREMES FOR CURRENT YEAR: Maximum contents, 48,280 acre-ft (59.5 hm^3) Apr. 6, elevation, 845.17 ft (257.608 m); minimum, 74 acre-ft (91,200 m^3) Sept. 14, elevation, 801.02 ft (244.151 m).

03141000 SENECAVILLE LAKE NEAR SENECAVILLE.--Lat 39°55'31", long 81°26'06", Guernsey County, Hydrologic Unit 05040005, in gate house of dam on Seneca Fork, 1.5 mi (2.4 km) southeast of Senecaville. DRAINAGE AREA, 118 mi^2 (306 km^2). PERIOD OF RECORD, June 1938 to current year. Prior to October 1971 published as Senecaville Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 812.05 ft (247.513 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level. Prior to Sept. 21, 1938, nonrecording gage at same site and datum.

Lake is formed by earthfill dam completed May 14, 1937. Usable capacity 86,340 acre-ft (106 hm^3) between elevations 812.05 ft (247.513 m) (lowest outlet), and 842.5 ft (256.79 m) (top of taintor gates), of which 41,300 acre-ft (50.9 hm^3) is in conservation pool. Usable capacity at elevation 831.0 ft (253.29 m) (crest of spillway), 37,180 acre-ft (45.8 hm^3). Dead storage below elevation 812.05 ft (247.513 m), 1,950 acre-ft (2.40 hm^3). Figures given herein represent usable contents. Taintor gates normally remain closed to maintain conservation pool at elevation 832.2 ft (253.65 m) and outflow is controlled by gates in conduits through dam. Lake is used for flood control and conservation. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 61,430 acre-ft (75.7 hm^3) Mar. 24, 1945, elevation, 837.27 ft (255.200 m); minimum, 360 acre-ft (444,000 m^3) Oct. 22, 23, 1939, elevation, 812.53 ft (247.659 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 51,150 acre-ft (63.1 hm^3) Apr. 7, elevation, 834.80 ft (254.447 m); minimum, 28,290 acre-ft (34.9 hm^3) Jan. 20-Feb. 3, elevation, 828.13 ft (252.414 m).

03142290 SALT FORK RESERVOIR NEAR CAMBRIDGE.--Lat 40°06'15", long 81°33'15", in T.3 N., R.3 W., Guernsey County, Hydrologic Unit 05040005, at outlet works near left end of dam on Salt Fork, 0.8 mi (1.3 km) upstream from mouth, 5.0 mi (8.0 km) north of Cambridge, and 3.5 mi (5.6 km) south of Kimbolton. DRAINAGE AREA, 159 mi^2 (412 km^2). PERIOD OF RECORD, September 1968 to current year. GAGE, water-stage recorder. Datum of gage is 700.00 ft (213.360 m) above mean sea level; gage readings have been reduced to elevations above mean sea level.

Reservoir is formed by earthfill dam with concrete morning-glory spillway and emergency spillway cut in natural rock; storage began Dec. 30, 1967. Usable capacity, 41,950 acre-ft (51.7 hm^3) between elevations 772.5 ft (235.46 m) (invert of lowest outlet), and 800.0 ft (243.84 m) (crest of morning-glory spillway). Dead storage below elevation 772.5 ft (235.46 m), 1,250 acre-ft (1.54 hm^3). Additional flood-retention capacity, 28,600 acre-ft (35.3 hm^3) between elevations 800.0 ft (243.84 m) and 808.0 ft (246.28 m) (crest of emergency spillway). Figures given herein represent usable contents. There are no gates on spillway and all regulation is done by conduits through dam. Reservoir is used for recreation, flood control, and future municipal supply. Capacity curve furnished by State Department of Natural Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 60,500 acre-ft (74.6 hm^3) Feb. 24, 1975, elevation, 805.46 ft (245.504 m); minimum, 12,200 acre-ft (15.0 hm^3) Oct. 17, 1968, elevation, 786.53 ft (239.734 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 57,530 acre-ft (70.9 hm^3) Apr. 5, elevation, 804.66 ft (245.260 m); minimum, 42,850 acre-ft (52.8 hm^3) Sept. 11, elevation, 800.29 ft (243.528 m).

RESERVOIRS IN MUSKINGUM RIVER BASIN, OH--Continued

03143000 WILLS CREEK LAKE NEAR WILLS CREEK.--Lat 40°09'25", long 81°51'00", in SE 1/4 sec. 23, T.4 N., R.6 W., Coshocton County, Hydrologic Unit 05040005, in gate house of dam on Wills Creek, 1.3 mi (2.1 km) south of village of Wills Creek, and 4.0 mi (6.4 km) southwest of Conesville. DRAINAGE AREA, 842 mi^2 (2,181 km^2). PERIOD OF RECORD, April 1938 to current year. Prior to October 1971 published as Wills Creek Reservoir. Month-end contents prior to September 1939 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is 733.0 ft (223.42 m) above mean sea level, adjustment of 1912; gage readings have been reduced to elevations above mean sea level.

Lake is formed by earthfill dam completed Oct. 13, 1937. Usable capacity, 194,400 acre-ft (240 hm^3) between elevations 733.0 ft (223.42 m) (lowest outlet), and 779.0 ft (237.44 m) (crest of spillway), of which 4,420 acre-ft (5.45 hm^3) is in conservation pool. Dead storage below elevation 733.0 ft (223.42 m), 1,580 acre-ft (1.95 hm^3). Figures given herein represent usable contents. Lake is used for flood control and conservation. There are no gates on spillway and all regulation is done by gates in conduits through dam. Water-stage recorder graph and capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 169,700 acre-ft (209 hm^3) Mar. 15, 1964, elevation, 776.73 ft (236.747 m); minimum, 300 acre-ft (370,000 m^3) Oct. 22, 23, 1939, elevation, 734.10 ft (223.754 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 52,780 acre-ft (65.1 hm^3) Apr. 8, elevation, 760.63 ft (231.840 m); minimum, 4,090 acre-ft (5.04 hm^3) Oct. 9, elevation, 741.61 ft (226.043 m).

03147300 DILLON LAKE NEAR DILLON FALLS.--Lat 39°59'32", long 82°04'57", in T.1 N., R.8 W., Muskingum County, Hydrologic Unit 05040006, in outlet works of control tower at dam on Licking River, 2 mi (3 km) northwest of Dillon Falls, and 5.8 mi (9.3 km) upstream from mouth at Zanesville. DRAINAGE AREA, 742 mi^2 (1,922 km^2). PERIOD OF RECORD, January 1961 to current year. Prior to October 1971 published as Dillon Reservoir. GAGE, water-stage recorder. Datum of gage is at mean sea level.

Lake formed by earth dam with concrete spillway; closure of dam made July 29, 1959; storage to maintain conservation pool began Dec. 17, 1960. Usable capacity 274,000 acre-ft (338 hm^3) between elevations 704.0 ft (214.58 m) (lowest outlet), and 790.0 ft (240.79 m) (crest of spillway), of which 13,170 acre-ft (16.2 hm^3) is in conservation pool. Dead storage below elevation 704.0 ft (214.58 m), 30 acre-ft (37,000 m^3). Figures given herein represent usable contents. Lake is used primarily for flood control. There are no gates on spillway and all regulation is done by gates in conduits through abutment of dam. Capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 142,600 acre-ft (176 hm^3) Mar. 13, 1964, elevation, 772.88 ft (235.574 m); minimum observed, 208 acre-ft (256,000 m^3) Mar. 31, 1961, elevation, 710.94 ft (216.694 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 71,700 acre-ft (88.4 hm^3) Apr. 8, elevation, 757.02 ft (230.740 m); minimum, 12,990 acre-ft (16.0 hm^3) Mar. 31; elevation, 733.90 ft (223.693 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	03119500	BOLIVAR RESERVOIR		03120000	LEESVILLE LAKE		03121000	ATWOOD LAKE	
Sept. 30.....	897.84	173	-	957.46	14060	-	927.75	23220	-
Oct. 31.....	899.16	312	+139	954.22	11490	-2570	927.84	23350	+130
Nov. 30.....	898.00	186	-126	954.12	11410	-80	925.76	20260	-3090
Dec. 31.....	897.80	170	-16	954.06	11370	-40	922.54	16040	-4220
CAL YR 1976	-	-	-1140	-	-	-150	-	-	-380
Jan. 31.....	897.50	146	-24	954.04	11350	-20	922.39	15860	-180
Feb. 28.....	925.57	19040	+18894	955.73	12660	+1310	927.34	22600	+6740
Mar. 31.....	900.03	425	-18615	960.83	17070	+4410	928.25	23990	+1390
Apr. 30.....	899.40	343	-82	962.87	19040	+1970	927.92	23470	-520
May 31.....	897.40	137	-206	962.64	18810	-230	927.67	23100	-370
June 30.....	897.72	163	+26	962.91	19080	+270	927.74	23200	+100
July 31.....	898.20	207	+44	962.78	18950	-130	927.85	23370	+170
Aug. 31.....	897.42	139	-68	962.70	18870	-80	927.73	23190	-180
Sept. 30.....	898.58	247	+108	962.74	18910	+40	927.79	23280	+90
WTR YR 1977	-	-	+74	-	-	-4850	-	-	+60
	03122000	DOVER LAKE		03123500	BEACH CITY LAKE		03125500	PIEDMONT LAKE	
Sept. 30.....	866.36	13	-	948.64	1990	-	912.68	32790	-
Oct. 31.....	866.54	17	+4	949.25	2300	+310	912.98	33460	+670
Nov. 30.....	865.88	4.4	-12.6	948.57	1960	-340	910.49	28030	-5430
Dec. 31.....	866.54	17	+12.6	948.63	1990	+30	907.57	22320	-5710
CAL YR 1976	-	-	-399	-	-	-1420	-	-	-4250
Jan. 31.....	866.02	5.4	-11.6	948.52	1940	-50	907.75	22650	+330
Feb. 28.....	874.60	1230	+1224.6	956.60	8570	+6630	910.56	28180	+5530
Mar. 31.....	868.90	106	-1124	946.65	2510	-6060	912.39	32150	+3970
Apr. 30.....	868.41	83	-23	949.35	2350	-160	913.26	34100	+1950
May 31.....	865.03	0.2	-82.8	948.48	1920	-430	912.69	32810	-1290
June 30.....	867.00	27	+26.8	949.28	2310	+390	912.73	32900	+90
July 31.....	866.04	5.9	-21.1	949.03	2180	-130	912.66	32750	-150
Aug. 31.....	865.85	4.2	-1.7	948.55	1950	-230	912.68	32790	+40
Sept. 30.....	866.88	24	+19.8	948.82	2080	+130	912.71	32860	+70
WTR YR 1977	-	-	+11	-	-	+90	-	-	+70

RESERVOIRS IN MUSKINGUM RIVER BASIN, OH--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	03126500	CLENDENING LAKE		03128000	TAPPAN LAKE		03129500	CHARLES MILL LAKE	
Sept. 30.....	897.64	25860	-	898.85	34010	-	997.32	7540	-
Oct. 31.....	897.85	26220	+360	898.78	33850	-160	997.37	7610	+70
Nov. 30.....	896.54	23990	-2230	896.14	28050	-5800	996.22	6070	-1540
Dec. 31.....	892.87	18290	-5700	894.26	24170	-3880	992.95	2540	-3530
CAL YR 1976	-	-	-370	-	-	-880	-	-	-690
Jan. 31.....	892.95	18400	+110	893.89	23440	-730	993.08	2650	+110
Feb. 28.....	896.04	23140	+4740	896.49	28780	+5340	1000.40	12310	+9660
Mar. 31.....	897.34	25350	+2210	898.67	33600	+4820	998.28	8910	-3400
Apr. 30.....	897.97	26420	+1070	899.38	35270	+1670	997.12	7260	-1650
May 31.....	897.68	25930	-490	899.12	34640	-630	997.11	7240	-20
June 30.....	897.77	26080	+150	899.22	34880	+240	997.20	7370	+130
July 31.....	897.82	26170	+90	899.33	35150	+270	997.31	7520	+150
Aug. 31.....	897.68	25930	-240	899.25	34950	-200	997.10	7230	-290
Sept. 30.....	897.69	25950	+20	899.06	34500	-450	997.16	7310	+80
WTR YR 1977	-	-	+90	-	-	+490	-	-	-230
	03133000	PLEASANT HILL LAKE		03134500	MOHICANVILLE RESERVOIR		03136300	N. B. KOKOSING RIVER LAKE	
Sept. 30.....	1019.43	13040	--	933.41	42	--	1121.39	1000	--
Oct. 31.....	1019.63	13210	+170	934.45	90	+48	1121.85	1080	+80
Nov. 30.....	1019.53	13130	-80	933.40	42	-48	1121.44	1010	-70
Dec. 31.....	1012.53	8060	-5070	933.30	38	-4	1119.87	780	-230
CAL YR 1976	--	--	-2430	--	--	-1042	--	--	-470
Jan. 31.....	1012.40	7970	-90	933.32	38	0	1119.90	784	+4
Feb. 28.....	1018.83	12550	+4580	944.20	4280	+4242	1121.07	952	+168
Mar. 31.....	1020.46	13930	+1380	934.75	106	-4174	1121.79	1070	+118
Apr. 30.....	1019.87	13410	-520	934.06	68	-38	1121.34	996	-74
May 31.....	1019.65	13220	-190	933.31	38	-30	1121.29	988	-8
June 30.....	1019.62	13200	-20	933.43	43	+5	1121.58	1040	+52
July 31.....	1019.44	13050	-150	933.36	40	-3	1121.30	990	-50
Aug. 31.....	1019.38	13000	-50	933.30	38	-2	1121.21	975	-15
Sept. 30.....	1019.44	13050	+50	933.42	42	+4	1121.25	981	+6
WTR YR 1977	--	--	+10	--	--	0	--	--	-19
	03138000	MOHAWK RESERVOIR		03141000	SENECAVILLE LAKE		03142290	SALT FORK RESERVOIR	
Sept. 30.....	801.75	115	--	832.01	40620	--	800.39	43160	--
Oct. 31.....	804.13	291	+176	832.42	42090	+1470	800.88	44680	+1520
Nov. 30.....	801.90	123	-168	830.00	33900	-8190	800.54	43620	-1060
Dec. 31.....	802.38	155	+32	828.22	28550	-5350	800.72	44180	+560
CAL YR 1976	--	--	-1535	--	--	-1760	--	--	-4890
Jan. 31.....	802.36	153	-2	828.13	28290	-260	800.63	43900	-280
Feb. 28.....	817.97	3890	+3737	831.49	38850	+10560	802.55	50120	+6220
Mar. 31.....	806.45	533	-3357	832.22	41370	+2520	801.90	47930	-2190
Apr. 30.....	804.39	316	-217	832.24	41440	+70	801.37	46230	-1700
May 31.....	801.56	104	-212	832.12	41010	-430	800.69	44090	-2140
June 30.....	802.58	168	+64	832.02	40650	-360	800.61	43840	-250
July 31.....	801.75	115	-53	832.59	42700	+2050	800.51	43530	-310
Aug. 31.....	801.22	85	-30	832.64	42880	+180	800.42	43560	+30
Sept. 30.....	801.86	121	+36	832.21	41330	-1550	800.43	43280	-280
WTR YR 1977	--	--	+6	--	--	+710	--	--	-120
	0314300	WILLS CREEK LAKE		03147300	DILLON LAKE				
Sept. 30.....	741.74	4200	--	737.13	17670	--			
Oct. 31.....	742.67	5080	+880	737.82	18770	+1100			
Nov. 30.....	742.64	5050	-30	734.02	13150	-5620			
Dec. 31.....	742.01	4430	-620	734.04	13170	+20			
CAL YR 1976	--	--	-3870	--	--	+41860			
Jan. 31.....	741.96	4390	-40	734.01	13130	-40			
Feb. 28.....	746.35	9980	+5590	747.30	39180	+26050			
Mar. 31.....	744.27	6920	-3060	734.11	13270	-25910			
Apr. 30.....	744.09	6680	-240	737.26	17880	+4610			
May 31.....	742.01	4430	-2250	737.20	17780	-100			
June 30.....	742.35	4760	+330	738.13	19280	+1500			
July 31.....	743.42	5890	+1130	738.21	19410	+130			
Aug. 31.....	741.92	4350	-1540	738.21	19410	0			
Sept. 30.....	741.93	4360	+10	737.06	17560	-1850			
WTR YR 1977	--	--	+160	--	--	-110			

03156000 HUNTERS RUN AT LANCASTER, OH

LOCATION.--Lat 39°41'57", long 82°37'18", in NE 1/4 sec. 11, T.14N., R.19W., Fairfield County, Hydrologic Unit 05030204, on right bank at downstream side of bridge on U.S. Highway 22, 1.0 mi (1.6 km) southwest of Lancaster, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--10.0 mi² (25.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1956 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 823.6 ft (251.03 m) above mean sea level.

REMARKS.--Records fair except those for winter periods, which are poor. Flood peaks affected by temporary retention in four retarding basins upstream from station, combined capacity, 2,820 acre-ft (3.48 hm³). Controlled drainage area is 8.49 mi² (22.0 km²).

AVERAGE DISCHARGE.--21 years, 9.89 ft³/s (0.280 m³/s), 13.43 in/yr (341 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft³/s (51.5 m³/s) May 27, 1968, gage height, 8.00 ft (2.438 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of slope-area measurement at gage height, 7.09 ft (2.161 m) and 6.53 ft (1.990 m); minimum daily, 0.08 ft³/s (0.002 m³/s) July 8, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 21 or 22, 1948 reached a stage of 15.4 ft (4.69 m), discharge, 11,200 ft³/s (317 m³/s), on basis of contracted-opening measurement of peak flow at Pennsylvania Railroad bridge, 0.8 mi (1.3 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 383 ft³/s (10.8 m³/s) Sept. 2 (base, 250 ft³/s, 7.08 m³/s), gage height, 4.63 ft (1.411 m); minimum daily, 0.08 ft³/s (0.002 m³/s) July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	13	.70	.79	.77	9.5	7.7	4.3	2.5	9.5	1.6	14
2	30	8.3	.84	.79	.76	8.9	58	6.4	2.2	2.2	1.4	75
3	29	6.4	1.9	.79	.76	7.7	46	4.3	2.2	.84	.99	51
4	1.2	5.6	1.6	.78	.76	33	27	14	2.2	.56	.99	8.9
5	1.4	5.0	1.9	.79	.76	21	40	12	2.2	.44	.84	2.2
6	3.1	4.3	3.8	.79	.76	14	26	14	2.5	.20	1.2	1.2
7	3.1	4.3	3.7	.79	.76	11	20	16	2.5	.13	7.7	.84
8	2.2	3.8	3.2	.79	.76	8.9	16	10	3.8	.13	12	.56
9	12	3.8	1.3	.79	.76	8.3	14	6.4	5.0	.13	9.5	.44
10	9.5	3.8	1.2	.79	.75	7.2	12	4.3	3.1	.10	2.5	.56
11	3.1	3.1	1.1	.79	.75	5.6	16	3.8	2.5	.99	7.7	.20
12	2.5	3.1	1.0	.79	2.5	16	14	3.1	2.5	2.2	18	.16
13	2.2	2.5	.98	.79	27	64	14	2.5	1.9	3.1	8.3	.16
14	2.5	3.1	.92	.79	22	24	13	2.5	3.8	1.4	14	.44
15	2.5	3.1	.90	.79	14	16	13	1.9	1.6	.26	7.2	.26
16	3.1	2.5	.88	.79	9.5	12	12	1.6	1.4	.16	3.1	29
17	3.1	2.5	.86	.79	7.5	11	12	1.6	1.4	.16	2.2	14
18	3.1	2.5	.84	.79	5.6	52	12	1.6	3.1	.10	1.6	5.0
19	3.8	2.5	.84	.79	4.5	27	12	1.6	12	.08	1.4	3.1
20	6.4	2.2	.82	.79	3.8	22	12	1.6	1.9	.70	1.4	2.2
21	7.2	2.5	.82	.79	3.6	17	6.4	1.6	.84	2.2	1.4	1.6
22	4.3	2.5	.80	.79	4.0	25	7.7	1.4	.44	3.8	1.9	1.2
23	3.8	7.7	.80	.79	63	19	8.3	1.4	.44	1.6	1.4	.99
24	19	.44	.80	.79	67	15	7.7	1.6	.34	1.4	8.9	1.2
25	16	.44	.80	.79	32	12	7.2	1.6	.44	4.3	13	1.2
26	7.7	.56	.80	.78	20	10	6.4	1.6	2.5	3.8	11	1.6
27	5.0	.70	.80	.78	16	9.5	5.0	1.6	5.0	1.6	12	1.2
28	4.3	.44	.80	.78	11	15	10	1.9	42	1.2	11	.56
29	4.3	.44	.80	.78	---	12	8.3	3.1	20	2.2	13	.34
30	6.4	.56	.80	.78	---	9.5	5.0	5.0	6.4	2.5	16	.26
31	22	---	.80	.78	---	8.3	---	3.1	---	1.6	16	---
TOTAL	254.8	101.68	38.10	24.42	321.35	531.4	468.7	137.4	138.70	49.58	209.22	219.37
MEAN	8.22	3.39	1.23	.79	11.5	17.1	15.6	4.43	4.62	1.60	6.75	7.31
MAX	31	13	3.8	.79	67	64	58	16	42	9.5	18	75
MIN	1.2	.44	.70	.78	.75	5.6	5.0	1.4	.34	.08	.84	.16
CFSM	.82	.34	.12	.08	1.15	1.71	1.56	.44	.46	.16	.68	.73
IN.	.95	.38	.14	.09	1.20	1.98	1.74	.51	.52	.18	.78	.82

CAL YR 1976 TOTAL 3375.38 MEAN 9.22 MAX 236 MIN .44 CFSM .92 IN 12.56
WTR YR 1977 TOTAL 2494.72 MEAN 6.83 MAX 75 MIN .08 CFSM .68 IN 9.28

03156000 HUNTERS RUN AT LANCASTER, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 30...	1530	9.1	500	8.2	19.0	11.2	120	.7	270	53	68	25
JUN 07...	1445	2.2	450	8.1	17.0	12.2	120	.6	300	49	72	28

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 30...	8.0	2.6	256	0	210	2.6	48	17	.2	5.2	300	.95
JUN 07...	7.9	2.2	300	0	246	3.8	44	14	.2	6.6	323	.16

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 30...	.02	.03	.04	2	<10	2	20	0	40	.0	20	--
JUN 07...	.01	.02	.03	1	<10	1	80	0	20	.2	10	5.0

03157000 CLEAR CREEK NEAR ROCKBRIDGE, OH

LOCATION.--Lat 39°35'18", long 82°34'43", in NE 1/4 sec. 20, T.13 N., R.18 W., Hocking County, Hydrologic Unit 05030204, on left bank at upstream side of county road bridge, 400 ft (122 m) downstream from unnamed right bank tributary, 2.0 mi (3.2 km) upstream from mouth, and 3 mi (5 km) west of Rockbridge.

DRAINAGE AREA.--89.0 mi² (231 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1305: 1940(M), 1943(M), 1945(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.13 ft (231.688 m) above mean sea level, adjustment of 1912. Prior to May 2, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--38 years, 86.0 ft³/s (2.436 m³/s), 13.12 in/yr (333 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) July 22, 1948, gage height, 17.68 ft (5.389 m) (from high-water mark in well), from rating curve extended above 4,300 ft³/s (122 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.0 ft³/s (0.085 m³/s) Dec. 29, 1947, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,870 ft³/s (53.0 m³/s) Feb. 23, gage height, 7.02 ft (2.140 m), no peak above base of 1,900 ft³/s (53.8 m³/s); minimum daily, 19 ft³/s (0.54 m³/s) Jan. 31 to Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	87	36	22	19	103	74	56	54	69	81	24
2	29	67	33	21	19	92	324	67	42	54	30	26
3	29	57	36	22	19	86	591	60	37	39	25	99
4	27	50	35	22	19	246	292	108	33	34	23	46
5	27	45	33	22	19	234	382	139	31	32	22	31
6	28	41	33	22	19	137	252	127	29	30	21	27
7	37	39	60	22	19	110	177	238	28	27	22	26
8	32	37	54	21	19	96	143	242	26	26	24	25
9	42	36	44	21	19	85	121	157	32	25	30	24
10	67	35	40	20	19	77	108	112	26	24	25	23
11	45	34	36	20	19	70	97	92	25	37	23	22
12	38	33	34	20	19	70	86	79	25	52	87	22
13	35	32	32	20	20	537	77	72	24	47	47	22
14	33	32	31	20	260	268	71	67	37	33	66	22
15	31	32	29	20	250	206	64	62	34	27	54	23
16	32	32	28	20	125	164	59	57	29	25	35	96
17	30	31	27	20	108	110	55	52	26	25	31	88
18	29	31	27	20	100	385	53	48	26	24	29	45
19	29	32	25	20	92	286	51	45	41	23	26	36
20	31	31	24	20	86	200	50	43	28	22	25	33
21	37	30	23	20	84	166	49	41	25	25	24	30
22	33	31	23	20	90	193	48	40	24	33	25	27
23	30	30	23	20	800	177	50	39	24	24	24	26
24	60	29	23	20	500	139	50	37	23	22	26	25
25	86	30	23	20	290	116	47	37	23	42	28	24
26	57	31	22	20	200	102	47	35	35	39	25	25
27	50	34	22	20	160	94	45	35	53	26	24	24
28	43	33	23	20	150	108	48	34	230	23	23	23
29	39	33	23	20	---	105	81	137	108	50	22	22
30	39	36	23	20	---	92	63	206	55	40	29	22
31	104	---	23	19	---	82	---	73	---	28	27	---
TOTAL	1260	1131	948	634	3543	4936	3655	2637	1233	1027	1003	1008
MEAN	40.6	37.7	30.6	20.5	127	159	122	85.1	41.1	33.1	32.4	33.6
MAX	104	87	60	22	800	537	591	242	230	69	87	99
MIN	27	29	22	19	19	70	45	34	23	22	21	22
CFSM	.46	.42	.34	.23	1.43	1.79	1.37	.96	.46	.37	.36	.38
IN.	.53	.47	.40	.26	1.48	2.06	1.53	1.10	.52	.43	.42	.42

CAL YR 1976 TOTAL 32416 MEAN 88.6 MAX 2760 MIN 22 CFSM 1.00 IN 13.55
WTR YR 1977 TOTAL 23015 MEAN 63.1 MAX 800 MIN 19 CFSM .71 IN 9.62

03157000 CLEAR CREEK NEAR ROCKBRIDGE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 16...	1430	123	420	8.2	11.0	10.4	94	1.4	210	55	54	18
JUN 08...	1230	24	415	8.2	13.0	10.6	100	.6	220	41	55	19

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 16...	4.8	2.2	188	0	154	1.9	43	12	.1	8.4	235	2.5
JUN 08...	5.6	1.8	213	0	175	2.2	31	9.8	.1	8.1	236	.91

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 16...	.01	.04	.04	2	10	10	20	7	40	.0	70	4.0
JUN 08...	.01	.03	.04	1	20	2	50	1	40	.0	30	5.4

03157500 HOCKING RIVER AT ENTERPRISE, OH

LOCATION.--Lat 39°33'54", long 82°28'29", in NW 1/4 sec. 5,T.14 N., R.17 W., Hocking County, Hydrologic Unit 05030204, at right bank at upstream side of abandoned bridge at Enterprise, 4.0 mi (6.4 km) downstream from Buck Run, and 4.3 mi (6.9 km) upstream from Scott Creek.

DRAINAGE AREA.--459 mi² (1,189 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Prior to May 1931 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 873: 1938. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 723.58 ft (220.547 m) above mean sea level. Prior to Oct. 24, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flood flow affected by temporary retention in eight retarding basins, combined capacity, 8,710 acre-ft (10.7 hm³) constructed between 1955 and 1961 upstream from station.

AVERAGE DISCHARGE.--47 years, 444 ft³/s (12.57 m³/s), 13.14 in/yr (334 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,000 ft³/s (736 m³/s) Mar. 10, 1964, gage height, 21.31 ft (6.495 m), from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of contracted-opening and slope-area measurement of peak flow; minimum daily, 23 ft³/s (0.65 m³/s) Aug. 12, 13, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1907, reached a stage of 22.0 ft (6.71 m), from floodmark, discharge, 36,000 ft³/s (1,020 m³/s), from reports of Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,630 ft³/s (103 m³/s) Apr. 3 (base, 3,500 ft³/s, 99.1 m³/s) gage height, 9.17 ft (2.795 m); minimum, 62 ft³/s (1.76 m³/s) July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	527	136	108	98	550	361	319	140	232	189	82
2	129	341	125	106	98	484	849	351	125	212	120	72
3	120	280	120	105	98	442	2860	509	114	136	91	316
4	114	245	122	104	98	836	2710	1190	110	125	80	164
5	110	218	114	102	98	1310	2270	1370	105	484	72	110
6	112	199	114	102	98	814	1810	1020	110	215	67	147
7	131	184	207	101	98	622	1190	1970	99	145	87	116
8	122	171	277	101	98	513	869	1320	99	122	192	97
9	154	164	254	100	98	455	689	775	140	105	189	83
10	234	162	200	100	99	411	595	580	131	97	125	78
11	186	157	190	100	100	364	524	477	107	95	101	71
12	152	150	185	100	100	361	462	407	103	181	498	65
13	136	143	165	100	102	1880	417	361	99	226	326	65
14	125	136	160	100	1190	1520	384	323	138	174	237	74
15	120	136	150	100	897	873	357	301	157	118	186	74
16	114	138	140	100	685	648	323	263	131	99	157	361
17	112	129	135	100	568	520	301	234	107	93	131	455
18	107	127	132	100	494	1370	289	215	101	87	114	221
19	105	129	130	100	435	2020	274	205	162	80	97	162
20	120	125	128	100	400	1420	263	192	110	74	85	171
21	164	122	125	100	357	934	254	176	99	82	82	140
22	159	122	122	99	338	905	243	164	89	116	91	120
23	133	120	120	99	1340	845	268	154	89	91	87	107
24	226	114	118	99	2160	663	295	223	85	72	107	99
25	394	118	116	98	2320	561	263	176	85	93	116	95
26	260	122	115	98	1710	494	248	154	197	118	101	105
27	232	143	114	98	966	448	232	143	150	76	107	93
28	199	143	113	98	700	509	274	136	452	65	85	87
29	174	143	112	98	---	576	599	186	335	140	72	82
30	166	118	110	98	---	470	390	332	192	473	105	74
31	442	---	109	98	---	411	---	159	---	157	93	---
TOTAL	5192	5126	4458	3112	15843	24231	20863	14385	4161	4583	4190	3986
MEAN	167	171	144	100	566	782	695	464	139	148	135	133
MAX	442	527	277	108	2320	2020	2860	1970	452	484	498	455
MIN	105	114	109	98	98	361	232	136	85	65	67	65
CFSM	.36	.37	.31	.22	1.23	1.70	1.51	1.01	.30	.32	.29	.29
IN.	.42	.42	.36	.25	1.28	1.96	1.69	1.17	.34	.37	.34	.32

CAL YR 1976 TOTAL 173890 MEAN 475 MAX 5550 MIN 89 CFSM 1.04 IN 14.09
WTR YR 1977 TOTAL 110130 MEAN 302 MAX 2860 MIN 65 CFSM .66 IN 8.93

03157500 HOCKING RIVER AT ENTERPRISE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
31...	1700	367	540	7.9	12.5	9.6	90	1.7	210	97	53	20
JUN												
07...	1230	102	710	7.6	17.0	7.7	79	2.5	300	120	72	28

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
31...	19	2.6	144	0	118	2.9	66	39	.1	7.3	279	.96
JUN												
07...	35	3.0	214	0	176	8.6	95	66	.2	9.4	415	1.4

DATE	TOTAL NITRITE (N) MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR											
31...	.03	.22	.12	2	<10	5	20	3	600	.0	50
JUN											
07...	.13	.37	.19	--	--	--	60	--	910	--	--

03158500 BURR OAK RESERVOIR AT BURR OAK, OH

LOCATION.--Lat 39°32'30", long 82°03'27", near center of sec. 6, T.11 N., R.14 W., Athens County, Hydrologic Unit 05030204, in control house of Tom Jenkins Dam on East Branch Sunday Creek, 0.2 mi (0.3 km) upstream from mouth, 0.4 (0.6 km) southeast of Burr Oak, and 3.0 mi (4.8 km) northeast of Glouster.

DRAINAGE AREA.--33.1 mi^2 (85.7 km^2).

PERIOD OF RECORD.--February 1952 to current year. Published as Tom Jenkins Reservoir at Burr Oak October 1952 to September 1962.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by earth dam with emergency spillway; storage began Feb. 2, 1952. Capacity at spillway level, elevation, 740 ft (226 m), 26,900 acre-ft (33.2 hm^3), of which 9,220 acre-ft (11.4 hm^3) is in water supply pool. Dead storage, 35 acre-ft (43,200 m^3). Figures given herein represent usable contents. Reservoir is used for flood control, although water supply pool is operated for increased low flow for recreation and conservation of fish and wildlife. Outflow is controlled by operation of gates in conduit through dam.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,820 acre-ft (22.0 hm^3) May 31, 1968, elevation, 731.53 ft (222.970 m); minimum, 3,450 acre-ft (4.25 hm^3) Nov. 20, 1953, elevation, 709.89 ft (216.374 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,040 acre-ft (14.8 hm^3) Apr. 5, elevation, 724.92 ft (220.956 m); minimum, 9,040 acre-ft (11.1 hm^3) Jan. 25, elevation, 720.71 ft (219.672 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	721.64	9660	--
Oct. 31	721.70	9700	+40
Nov. 30	721.41	9500	-200
Dec. 31	721.34	9460	-40
CAL YR 1976	--	--	-50
Jan. 31	721.35	9460	0
Feb. 28	721.24	9390	-70
Mar. 31	721.43	9520	+130
Apr. 30	721.52	9580	+60
May 31	720.98	9210	-370
June 30	721.52	9580	+370
July 31	721.47	9540	-40
Aug. 31	721.49	9560	+20
Sept. 30	720.98	9210	-350
WTR YR 1977	--	--	-450

03159000 SUNDAY CREEK AT GLOUSTER, OH

LOCATION.--Lat 39°30'03", long 82°05'07", Athens County, Hydrologic Unit 05030204, on left bank 150 ft (46 m) downstream from West Branch and 200 ft (61 m) upstream from bridge on State Highway 78 at Glouster.

DRAINAGE AREA.--104 mi² (269 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 665.18 ft (202.747 m) above mean sea level. Prior to Dec. 4, 1951, nonrecording gage at site 300 ft (91 m) downstream at same datum.

REMARKS.--Records good except those for winter periods or no gage height record, which are fair. Flow partially regulated by Burr Oak Reservoir 5.2 mi (8.4 km) upstream (see station 03158500). Most of small diversion downstream from Burr Oak Reservoir, average discharge 0.90 ft³/s (0.025 m³/s), is returned to stream upstream from station.

AVERAGE DISCHARGE.--26 years, 108 ft³/s (3.059 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,020 ft³/s (199 m³/s) Mar. 5, 1963, gage height, 17.81 ft (5.428 m), from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of velocity-area study and flow over road estimate of peak discharge; minimum daily, 0.5 ft³/s (0.014 m³/s) Nov. 2, 3, Dec. 5, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1907 reached a stage of 22.0 ft (6.71 m), from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft³/s (43.6 m³/s) Apr. 1, gage height, 12.93 ft (3.941 m); minimum daily, 3.6 ft³/s (0.10 m³/s) Aug. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	100	17	16	12	136	1230	35	9.1	143	24	10
2	6.1	180	16	16	12	113	408	34	8.7	91	15	10
3	5.1	50	16	16	12	93	631	33	8.3	26	7.0	11
4	6.1	38	16	16	12	462	714	40	8.7	26	4.7	11
5	6.6	33	16	15	12	523	660	100	7.9	67	3.6	11
6	14	29	16	15	12	384	400	220	8.7	63	3.6	11
7	14	26	16	15	12	223	300	400	7.9	30	4.7	15
8	15	24	118	14	12	107	250	700	8.7	13	5.6	14
9	65	23	78	14	12	94	160	1000	12	13	6.6	11
10	165	22	55	14	12	82	130	500	10	10	7.5	10
11	87	21	46	14	17	78	110	250	10	15	7.5	9.5
12	19	20	42	14	52	439	90	150	9.1	75	32	9.1
13	16	19	38	14	82	556	80	100	9.1	51	21	10
14	15	19	35	14	308	272	74	85	9.1	27	13	19
15	15	19	33	13	309	137	63	65	8.3	18	13	23
16	15	19	31	13	129	113	60	45	9.5	13	10	75
17	14	18	28	13	68	396	54	35	8.7	12	14	68
18	14	18	26	13	56	1010	50	29	8.3	9.1	14	60
19	14	18	25	13	49	480	48	25	5.1	8.3	9.5	58
20	15	17	24	13	46	454	46	23	5.6	9.1	8.3	19
21	19	17	23	13	40	433	45	21	7.0	9.5	7.9	11
22	16	17	22	13	59	291	43	19	5.6	7.5	9.5	10
23	15	16	21	13	360	144	42	15	4.3	8.3	11	11
24	43	16	21	13	957	116	42	14	7.5	6.6	8.7	12
25	87	16	20	12	817	81	42	15	11	7.5	12	13
26	116	17	19	12	553	71	40	14	164	8.3	10	15
27	97	18	18	12	365	75	40	12	29	7.9	9.1	15
28	28	18	18	12	185	95	39	10	158	8.3	10	14
29	25	19	18	12	---	79	38	9.5	113	8.3	10	11
30	20	18	17	12	---	68	37	9.5	76	10	10	8.7
31	50	---	16	12	---	110	---	9.1	---	11	10	---
TOTAL	1044.4	885	897	421	4572	7715	5966	4017.1	748.2	812.7	332.8	585.3
MEAN	33.7	29.5	28.9	13.6	163	249	199	130	24.9	26.2	10.7	19.5
MAX	165	180	118	16	957	1010	1230	1000	164	143	32	75
MIN	5.1	16	16	12	12	68	37	9.1	4.3	6.6	3.6	8.7

CAL YR 1976 TOTAL 38431.8 MEAN 105 MAX 1860 MIN 5.1
WTR YR 1977 TOTAL 27996.5 MEAN 76.7 MAX 1230 MIN 3.6

Note: No gage height record Oct. 29-31, Dec. 6 to Jan. 4, Jan. 8-18, and Apr. 5 to May 18.

03159000 SUNDAY CREEK AT GLOUSTER, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 30...	1030	76	505	6.8	14.0	9.1	88	1.3	180	140	44	16
JUN 21...	1430	7.3	2200	3.8	22.5	5.9	67	6.1	590	590	130	64

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 30...	29	2.7	43	0	35	11	180	31	.1	8.0	350	.17
JUN 21...	150	7.0	0	0	0	.0	1200	44	.3	19	1830	.13

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 30...	.00	.19	.05	1	<10	2	17000	4	850	.0	50	--
JUN 21...	.00	1.0	.14	4	20	2	200000	4	8500	.0	320	7.6

03159510 HOCKING RIVER BELOW ATHENS, OH

LOCATION.--Lat 39°19'39", long 82°00'18", Athens County, Hydrologic Unit 05030204, at downstream side of Harmony Lane Bridge, 3.5 mi (5.6 km) east of Athens, 1.1 mi (1.8 km) downstream from Strouds Run, and 2.8 mi (4.5 km) upstream from Scott Creek.

DRAINAGE AREA.--957 mi^2 (2,479 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to September 1977.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft (182.880 m) above mean sea level. Prior to Aug. 17, 1931 nonrecording gage at site 5.3 mi (8.5 km) upstream at datum 11.26 ft (3.432 m) higher, Aug. 18, 1931 to June 18, 1970 at datum 14.81 ft (4.514 m) higher, and Oct. 1, 1971 to Sept. 30, 1976 at datum 11.26 ft (3.432 m) higher.

REMARKS.--Records poor. Some regulation by Burr Oak Reservoir on East Branch Sunday Creek 34.3 mi (55.2 km) upstream beginning 1952 (see station 03158500); by Hocking Lake, capacity 3,080 acre-ft (3.80 hm^3), on Clear Fork 44.7 mi (71.9 km) upstream beginning in 1949; by temporary retention in eight retarding basins, combined capacity, 8,710 acre-ft (10.7 hm^3), constructed between 1955 and 1961 upstream from Lancaster, and Dow Lake capacity 1,884 acre-ft (2.3 hm^3), on Strounds Run, 1.1 mi (1.8 km) upstream.

EXTREMES OUTSIDE PERIOD RECORD.--Flood of Mar. 11, 1964 reached a stage of 24.18 ft (7.370 m), at site and datum the in use, discharge, 32,900 ft^3/s (932 m^3/s). Flood in March 1907 reached a stage of 27 ft (8 m), site and datum then in use, discharge 50,000 ft^3/s (1,420 m^3/s), estimated by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,430 ft^3/s (182 m^3/s) Apr. 3, gage height, 19.10 ft (5.822 m); minimum daily, 81 ft^3/s (2.29 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	383	303	215	190	1400	929	524	284	453	346	158
2	1000	1000	287	215	190	1260	960	515	240	418	308	153
3	920	910	275	212	190	1230	6430	755	212	380	219	134
4	201	795	240	210	190	2660	5660	1690	201	351	212	153
5	196	643	212	210	190	3530	5930	1890	186	487	196	201
6	189	490	275	209	195	2320	4710	2040	182	658	153	201
7	191	420	400	206	195	1890	3430	4140	172	634	117	196
8	420	400	600	205	198	999	2320	5670	165	481	85	155
9	370	370	520	205	200	1060	1800	5000	165	315	81	146
10	350	350	440	200	200	910	1500	3540	169	214	83	119
11	350	344	380	200	200	846	1180	1940	167	232	130	104
12	327	349	350	200	205	810	1070	941	165	351	201	102
13	267	351	330	200	210	3900	979	799	162	308	356	97
14	235	303	310	200	2400	3610	960	755	155	280	439	104
15	222	296	295	200	2000	2150	846	664	151	275	346	102
16	217	291	285	200	1600	1850	799	652	144	253	303	179
17	217	282	280	200	1200	1220	1070	598	141	232	222	478
18	214	272	270	200	1050	2840	664	515	158	227	201	530
19	206	267	260	200	950	5400	577	439	219	219	172	341
20	204	275	255	200	650	3340	568	383	214	153	153	266
21	201	282	250	200	780	3080	545	356	201	141	155	216
22	196	275	248	200	1610	2830	515	339	165	130	153	187
23	222	259	240	200	3300	2080	553	327	146	109	160	161
24	315	240	235	200	5510	1810	589	322	141	158	165	144
25	680	222	233	200	3500	1220	574	315	144	303	206	136
26	589	232	230	200	3300	979	515	308	504	284	189	138
27	574	248	228	200	2200	948	501	303	439	189	172	134
28	481	267	225	200	1600	1010	487	294	846	153	153	128
29	388	275	220	200	---	972	929	308	689	134	160	117
30	344	284	219	200	---	937	791	332	613	104	162	108
31	1160	---	218	200	---	903	---	339	---	201	155	---
TOTAL	12546	11375	9113	6289	34403	59994	48381	36993	7540	8827	6153	5388
MEAN	405	379	294	203	1229	1935	1613	1193	251	285	198	180
MAX	1160	1000	600	215	5510	5400	6430	5670	846	658	439	530
MIN	189	222	212	200	190	810	487	294	141	104	81	97

WTR YR 1977 TOTAL 247002 MEAN 677 MAX 6430 MIN 81

03159510 HOCKING RIVER BELOW ATHENS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1966 to current year.
pH: May 1966 to current year.
WATER TEMPERATURES: May 1966 to current year.
DISSOLVED OXYGEN: May 1966 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,500 micromhos July 12, 1966, Oct. 3, 1968, Aug. 6, 1975; minimum, 140 micromhos July 13, 1966, Mar. 5, 1967.
pH: Maximum, 8.9 units Sept. 30, 1977; minimum, 3.3 units Aug. 6, 1975.
WATER TEMPERATURES: Maximum, 33.5°C July 18, 19, 21, 1977; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Jan. 31, Feb. 1, 16-20, 1973, Dec. 26, 1975; minimum, 0.4 mg/L June 9, 1966.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,380 micromhos June 27; minimum, 263 micromhos May 8.
pH: Maximum, 8.9 units Sept. 30; minimum, 4.2 units June 27.
WATER TEMPERATURES: Maximum, 33.5°C July 18, 19, 21; minimum, 0.0°C Dec. 3.
DISSOLVED OXYGEN: Maximum, 13.0 mg/L Feb. 17, 19, 22, Sept. 29; minimum, 3.2 mg/L May 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 14...	1500	3500	370	7.1	9.0	10.2	88	4.0	150	92	37	13
JUN 16...	1130	192	925	7.5	24.5	10.2	120	.0	350	240	86	34

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	16	3.4	66	0	54	8.4	74	32	.1	7.8	216	1.3
JUN 16...	56	3.6	136	0	112	6.9	250	81	.2	7.2	585	.87

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.02	.16	.25	13	10	27	30	26	310	.0	140	7.8
JUN 16...	.02	.03	.04	2	<10	2	10	3	520	.1	110	8.2

03159510 HOCKING RIVER BELOW ATHENS, OH--Continued

PESTICIDE ANALYSES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ATRAZINE (UG/L)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)
NOV 15...	1530	ND	ND	ND	ND	ND	55	ND	ND	ND	ND	ND
FEB 23...	1400	ND	--	ND	--	ND	--	ND	ND	ND	--	ND
MAY 16...	1100	ND	--	--	--	ND	--	ND	ND	ND	--	ND
AUG 08...	1445	ND	--	.32	--	ND	--	ND	ND	ND	--	ND

DATE	DIAZINON IN BOTTOM MATERIAL (UG/KG)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)
NOV 15...	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 23...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 16...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 08...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	MALATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHOXYCHLOR (UG/L)	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL TRITHION (UG/L)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL PARATHION (UG/L)	PARATHION IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 23...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 16...	--	ND	--	ND	--	ND	--	ND	--	ND	--	--
AUG 08...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MATERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MATERIAL (UG/KG)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 23...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	--	ND	--	ND	--	--	--	--	--	--	--
AUG 08...	--	ND	--	ND	--	--	--	--	--	--	--

03159510 HOCKING RIVER BELOW ATHENS, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	900	852	726	567	927	884	893	845	953	921	---	---
2	926	868	651	558	1010	885	894	840	947	909	579	543
3	992	909	605	561	1000	950	962	875	932	914	620	555
4	1010	930	633	590	1020	935	966	903	1070	932	618	428
5	1000	918	702	624	---	---	980	887	1040	954	465	416
6	1010	912	701	660	---	---	996	912	1050	954	447	419
7	1010	935	719	675	---	---	944	902	999	942	474	438
8	1040	932	749	698	---	---	---	---	1000	911	480	453
9	963	792	767	723	---	---	---	---	1000	903	---	---
10	995	879	791	726	---	---	---	---	1000	933	---	---
11	1000	743	786	737	---	---	---	---	1110	906	---	---
12	809	746	806	762	---	---	---	---	972	704	642	593
13	819	725	836	782	---	---	924	848	720	504	606	374
14	869	725	822	773	744	719	956	891	683	524	393	360
15	878	836	848	770	789	719	972	882	596	503	443	390
16	932	725	851	798	776	750	954	908	525	476	504	428
17	957	870	893	809	782	719	980	920	573	513	537	489
18	944	887	849	797	788	729	1020	933	645	563	533	395
19	1010	897	869	789	785	738	1020	927	683	582	368	306
20	986	864	863	804	773	707	1010	918	681	635	396	356
21	951	852	854	791	770	716	990	918	692	651	429	398
22	963	884	888	809	792	740	1040	935	738	651	461	428
23	998	926	881	800	803	755	1020	917	668	512	464	417
24	968	840	1030	807	821	668	995	923	---	---	537	441
25	876	762	938	897	734	674	992	930	---	---	566	519
26	939	785	941	890	797	740	1030	909	---	---	581	542
27	803	696	957	897	806	759	999	875	---	---	609	570
28	764	674	944	894	819	765	945	899	---	---	606	587
29	764	731	965	884	848	798	986	881	---	---	608	576
30	762	722	975	885	863	812	990	909	---	---	593	555
31	711	486	---	---	867	812	1010	939	---	---	626	585
MONTH	1040	486	1030	558	1020	668	1040	840	1110	476	642	306

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	639	603	686	644	749	609	609	480	774	627	1060	996
2	648	495	668	627	771	644	747	527	839	684	1110	876
3	479	276	687	650	890	785	734	663	845	732	---	---
4	336	282	645	492	926	842	699	591	866	732	---	---
5	354	333	494	363	984	878	704	533	849	722	---	---
6	369	339	453	369	1020	915	806	669	848	684	861	632
7	383	351	443	353	1030	930	744	549	878	710	866	684
8	420	380	336	263	1010	950	698	615	990	876	894	810
9	465	423	416	330	984	908	795	704	1010	894	956	860
10	516	444	441	405	1010	921	774	737	978	840	1040	935
11	558	506	509	437	1010	923	833	779	962	878	1050	966
12	578	542	554	500	1040	924	848	701	998	723	1080	1020
13	596	566	588	545	1000	939	983	825	993	806	1060	950
14	638	585	647	581	986	884	891	774	768	644	1090	972
15	672	630	651	612	956	891	819	672	806	716	1140	969
16	669	636	707	635	993	908	786	720	837	701	1060	948
17	681	651	725	656	1040	921	903	533	839	761	1210	888
18	711	660	726	651	984	914	896	689	845	741	990	566
19	729	683	750	698	960	866	902	762	941	839	669	600
20	741	696	771	717	999	896	941	789	945	885	774	672
21	752	705	816	737	990	947	995	869	950	867	807	726
22	759	722	834	783	1120	986	966	782	966	899	852	762
23	801	731	842	800	1080	963	825	666	1030	929	923	795
24	803	734	911	822	978	908	831	584	1070	938	920	821
25	782	732	893	822	993	786	833	435	1070	981	888	812
26	770	726	866	798	989	533	903	576	1050	968	923	836
27	800	752	900	833	1380	636	953	854	1070	765	1000	905
28	801	756	897	785	642	342	962	899	1050	917	1030	929
29	800	746	875	828	896	531	1030	873	1010	962	1030	939
30	815	594	902	870	632	512	1060	897	1020	785	1050	972
31	---	---	882	741	---	---	960	672	998	768	---	---
MONTH	815	276	911	263	1380	342	1060	435	1070	627	1210	566
YEAR	1380	263										

03159510 HOCKING RIVER BELOW ATHENS, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.5	7.4	7.5	7.0	7.6	7.4	7.3	7.2	7.0	6.8	---	---
2	7.5	7.4	7.6	7.4	7.6	7.4	7.3	7.1	7.0	6.7	7.5	7.1
3	7.5	7.5	7.5	7.4	---	---	7.3	7.2	6.9	6.7	7.3	6.9
4	7.6	7.5	7.6	7.5	---	---	7.3	7.2	6.9	6.8	7.0	6.8
5	7.6	7.5	7.6	7.5	---	---	7.3	7.2	7.0	6.9	7.0	6.8
6	7.6	7.5	7.6	7.5	---	---	7.3	7.2	7.0	6.9	7.0	6.8
7	7.6	7.5	7.6	7.5	---	---	7.4	7.2	7.0	6.8	7.2	6.9
8	7.6	7.5	7.7	7.6	---	---	---	---	7.0	6.8	7.6	6.9
9	7.6	7.4	7.7	7.6	---	---	---	---	7.0	6.7	---	---
10	7.4	6.4	7.7	7.6	---	---	---	---	7.1	6.9	---	---
11	7.3	6.4	7.6	7.6	---	---	---	---	7.1	6.9	---	---
12	7.5	7.3	7.7	7.6	---	---	---	---	7.0	6.9	7.0	6.9
13	7.6	7.5	7.7	7.6	---	---	7.1	7.0	7.0	6.9	7.2	6.7
14	7.6	7.5	7.7	7.6	7.7	7.5	7.0	6.9	7.2	7.0	7.1	6.8
15	7.8	7.6	7.6	7.5	7.6	7.5	7.0	7.0	7.3	7.1	7.0	6.7
16	7.8	7.8	7.7	7.5	7.6	7.4	7.2	7.0	7.3	7.1	7.1	6.9
17	7.9	7.7	7.7	7.5	7.6	7.5	7.1	7.0	7.3	7.2	7.1	6.9
18	7.9	7.7	7.6	7.5	7.6	7.5	7.1	6.9	7.2	7.2	7.2	6.8
19	7.9	7.8	7.6	7.5	7.6	7.4	7.0	6.9	7.4	7.1	6.9	6.7
20	7.9	7.7	7.6	7.5	7.6	7.5	7.0	6.9	7.2	7.2	6.9	6.7
21	7.9	7.7	7.6	7.5	7.7	7.5	6.9	6.9	7.2	7.2	7.0	6.7
22	7.9	7.6	7.7	7.6	7.5	7.4	7.0	6.8	7.5	6.7	7.1	6.8
23	7.8	7.5	7.7	7.6	7.5	7.4	7.0	6.8	7.2	6.9	7.1	6.8
24	7.6	7.5	7.6	7.6	7.5	7.1	6.9	6.8	---	---	7.1	6.8
25	7.5	6.9	7.6	7.4	7.5	7.5	6.9	6.8	---	---	7.1	6.8
26	7.6	7.0	7.5	7.4	7.5	7.4	6.9	6.8	---	---	7.1	6.8
27	7.6	7.3	7.5	7.4	7.6	7.4	7.0	6.9	---	---	7.0	6.8
28	7.7	7.3	7.6	7.5	7.4	7.3	7.1	6.9	---	---	6.9	6.8
29	7.8	7.7	7.8	7.6	7.5	7.3	7.1	6.9	---	---	7.0	6.6
30	7.8	7.7	7.7	7.5	7.4	7.2	7.1	7.0	---	---	7.0	6.7
31	7.7	7.1	---	---	7.4	7.3	7.1	6.9	---	---	7.2	6.9
MONTH	7.9	6.4	7.8	7.0	7.7	7.1	7.4	6.8	7.5	6.7	7.6	6.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.2	6.9	7.2	6.8	7.3	7.0	7.1	6.9	7.2	6.5	8.0	7.7
2	7.0	6.9	7.1	6.9	7.2	7.0	6.9	6.6	6.8	6.2	8.2	7.8
3	6.8	6.6	7.2	7.0	7.3	7.2	7.2	7.0	6.9	6.2	8.2	7.7
4	6.8	6.6	7.1	6.6	7.4	7.2	7.2	7.0	7.1	6.3	8.1	7.7
5	6.9	6.6	7.0	6.7	7.3	7.2	7.1	6.7	7.2	6.3	8.2	7.8
6	6.9	6.8	7.0	6.7	[illegible]	7.1	7.0	6.8	7.3	6.6	8.1	7.9
7	6.9	6.6	7.0	6.9	[illegible]	7.3	7.1	6.8	7.6	6.9	7.9	7.8
8	6.9	6.7	7.0	6.6	[illegible]	7.3	7.2	7.0	7.6	7.1	8.1	7.9
9	7.0	6.7	7.0	6.8	7.6	7.3	7.4	7.1	7.7	7.2	8.0	7.8
10	6.9	6.5	7.1	6.9	7.6	7.2	7.6	7.3	7.6	7.2	7.9	7.8
11	[illegible]	6.6	7.1	6.9	7.4	7.2	7.8	7.3	7.5	7.2	8.0	7.8
12	6.9	6.6	7.1	6.8	7.6	7.2	7.9	7.3	7.2	7.0	8.1	7.9
13	7.0	6.7	7.1	6.9	7.8	7.3	7.5	6.6	---	---	8.2	8.1
14	7.0	6.7	7.1	6.9	7.5	7.2	7.9	7.1	---	---	8.6	8.1
15	7.0	6.8	7.2	6.9	7.6	7.2	7.6	7.2	---	---	8.6	8.3
16	7.1	6.8	7.2	6.9	7.7	7.2	7.7	7.3	---	---	8.5	7.7
17	7.0	6.8	7.2	6.9	7.6	7.4	7.7	7.2	8.1	7.6	8.1	6.4
18	7.0	6.7	7.2	6.9	8.3	7.3	7.7	7.1	8.1	7.7	7.6	7.3
19	7.0	6.8	7.2	7.0	8.1	7.4	8.1	7.3	8.1	7.7	7.6	7.5
20	7.2	6.7	7.3	7.1	7.8	7.4	8.4	7.3	8.1	7.6	7.7	7.5
21	7.2	7.0	7.3	7.2	7.9	7.4	8.2	7.5	8.2	7.7	7.9	7.6
22	7.2	7.1	7.4	7.2	7.6	7.4	8.2	7.3	8.4	7.8	8.0	7.9
23	7.2	7.1	7.4	7.3	7.8	7.4	8.0	7.4	8.3	7.8	8.1	7.9
24	7.2	7.1	7.3	7.2	7.7	7.4	7.9	7.3	8.3	7.7	8.1	8.0
25	7.3	7.2	7.3	7.1	7.6	7.3	7.7	7.2	8.0	7.7	8.2	8.0
26	7.3	7.2	7.6	7.3	7.5	6.9	7.5	7.3	8.0	7.7	8.1	7.9
27	7.3	6.9	7.7	7.3	7.0	4.2	7.5	7.2	7.8	7.5	8.2	8.0
28	7.3	7.1	7.5	7.2	7.3	6.9	7.5	7.2	7.8	7.6	8.3	8.0
29	7.3	6.8	7.5	7.3	6.9	6.2	7.5	7.3	7.8	7.5	8.8	8.1
30	7.2	6.9	7.4	7.2	6.9	6.7	7.5	6.9	7.8	7.5	8.9	8.4
31	---	---	7.3	7.2	---	---	7.3	6.8	8.0	7.5	---	---
MONTH	7.3	6.5	7.7	6.6	8.3	4.2	8.4	6.6	8.4	6.2	8.9	6.4
YEAR	8.9	4.2										

03159510 HOCKING RIVER BELOW ATHENS, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.5	8.0	6.0	2.5	0.5	0.5	0.5	1.0	0.5	---	---
2	18.0	15.5	8.0	6.0	1.0	0.5	1.0	0.5	1.0	0.5	4.0	1.5
3	20.0	15.0	9.0	7.0	4.5	0.0	0.5	0.5	1.0	0.5	5.0	2.5
4	20.5	15.0	8.0	6.0	---	---	0.5	0.5	1.0	0.5	5.5	4.0
5	21.0	15.5	7.0	5.5	---	---	0.5	0.5	1.0	0.5	6.0	5.5
6	21.0	17.0	7.5	4.5	---	---	0.5	0.5	0.5	0.5	6.5	5.5
7	17.5	15.0	6.5	5.0	---	---	0.5	0.5	1.0	0.5	6.0	5.0
8	15.5	14.5	6.0	4.0	---	---	---	---	1.0	0.5	---	---
9	15.5	12.0	7.0	3.5	---	---	---	---	1.0	0.5	---	---
10	14.5	11.0	6.5	5.0	---	---	---	---	1.0	0.5	---	---
11	15.0	11.0	6.0	5.0	---	---	---	---	1.0	0.5	---	---
12	16.5	11.5	6.0	5.0	---	---	---	---	0.5	0.5	---	---
13	17.0	12.0	5.5	3.5	---	---	1.0	0.5	0.5	0.5	---	---
14	16.0	11.5	6.0	2.5	2.0	1.0	1.0	0.5	0.5	0.5	---	---
15	17.0	11.0	6.0	4.0	2.5	0.5	1.0	0.5	0.5	0.5	10.0	8.0
16	16.5	12.0	5.5	2.5	2.5	0.5	0.5	0.5	0.5	0.5	11.5	9.5
17	14.0	11.0	6.0	2.5	3.5	1.0	0.5	0.5	0.5	0.5	10.5	9.0
18	12.5	8.5	6.0	3.5	3.0	0.5	0.5	0.5	0.5	0.5	10.5	8.5
19	12.5	6.0	7.0	4.0	4.0	0.5	1.0	0.5	0.5	0.5	8.0	7.0
20	11.5	8.5	6.0	4.0	3.5	2.0	1.0	0.5	0.5	0.5	7.0	6.5
21	9.5	8.0	5.5	3.0	2.0	0.5	1.0	0.5	1.0	0.5	7.5	6.0
22	10.0	6.5	4.5	3.0	0.5	0.5	1.0	0.5	1.5	0.5	7.5	6.0
23	9.0	6.0	4.0	2.5	0.5	0.5	1.0	0.5	1.5	0.5	7.5	6.0
24	9.0	7.0	3.0	1.5	0.5	0.5	0.5	0.5	---	---	8.0	6.0
25	9.5	9.0	5.0	1.5	0.5	0.5	0.5	0.5	---	---	8.5	6.0
26	9.0	8.0	7.5	4.0	1.0	0.5	0.5	0.5	---	---	9.5	6.5
27	8.0	7.0	9.5	7.0	0.5	0.5	0.5	0.5	---	---	10.0	7.0
28	8.5	5.5	8.5	5.0	1.0	0.5	0.5	0.5	---	---	11.0	9.0
29	8.5	4.5	5.0	2.5	1.0	0.5	0.5	0.5	---	---	14.5	10.5
30	7.5	5.0	2.0	0.5	0.5	0.5	0.5	0.5	---	---	16.5	13.0
31	7.5	6.5	---	---	1.0	0.5	0.5	0.5	---	---	15.5	13.5
MONTH	21.0	4.5	9.5	0.5	4.5	0.0	1.0	0.5	1.5	0.5	16.5	1.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	12.0	17.0	12.0	26.0	22.5	25.0	22.0	27.0	23.0	30.5	26.0
2	14.0	12.5	18.5	14.5	25.5	21.5	26.0	22.0	28.5	22.5	31.0	27.0
3	13.0	12.0	19.0	16.5	25.5	19.5	27.0	22.0	29.5	22.5	29.5	25.0
4	12.0	11.5	18.0	17.5	26.5	19.0	26.0	22.0	30.0	24.5	29.5	23.0
5	12.0	10.5	18.0	16.5	26.5	20.0	26.5	22.0	30.5	25.5	28.0	24.5
6	10.5	8.0	19.5	17.0	24.0	21.0	29.0	24.0	30.5	27.0	27.5	24.0
7	8.0	7.0	19.0	17.5	23.0	17.5	31.0	25.5	30.5	27.5	27.0	23.0
8	9.5	8.0	17.5	16.5	19.5	15.5	32.0	26.5	29.5	26.0	27.5	23.0
9	10.5	8.5	16.0	14.5	19.5	16.0	31.0	26.5	29.0	25.0	28.0	23.5
10	12.0	9.0	15.0	13.5	23.5	15.5	29.0	25.0	28.5	25.0	28.0	24.0
11	14.5	10.5	15.5	12.5	23.0	17.5	30.5	24.5	28.0	24.5	25.5	20.0
12	16.5	13.0	17.5	13.0	25.0	17.0	28.0	24.5	28.0	24.0	23.0	18.5
13	18.5	14.5	19.5	14.5	26.0	19.5	30.0	24.5	25.0	23.5	22.5	20.5
14	19.0	15.5	19.5	16.5	26.0	21.0	32.0	25.0	27.5	23.0	24.0	21.5
15	19.5	16.0	22.0	16.5	27.5	21.5	32.0	25.5	28.5	24.0	23.0	20.0
16	19.5	15.5	23.0	17.5	27.5	22.0	32.0	27.0	29.5	24.5	23.5	21.0
17	19.0	16.0	23.5	18.5	28.5	23.0	32.0	27.0	29.0	25.5	23.5	21.0
18	19.5	16.0	24.5	19.5	28.5	24.0	33.5	27.0	26.5	22.0	24.5	20.0
19	19.0	16.0	26.5	20.5	28.5	24.0	33.5	28.0	26.5	21.0	26.0	21.0
20	21.0	16.5	27.5	21.0	28.0	24.0	33.0	29.0	26.5	20.5	25.0	22.0
21	22.0	18.0	27.5	21.5	27.5	22.5	33.5	29.0	26.5	21.0	23.0	19.5
22	20.5	19.0	28.0	21.5	27.5	21.0	31.5	27.0	26.5	22.0	23.5	18.5
23	20.0	18.5	27.5	22.5	26.0	20.0	30.5	24.5	26.5	22.0	23.5	18.5
24	19.5	16.5	27.0	22.0	26.5	22.0	30.0	24.0	27.0	22.5	24.0	19.5
25	16.5	14.0	26.0	22.5	25.5	22.5	29.5	25.5	25.0	20.0	23.5	20.0
26	14.0	12.5	27.5	21.5	27.5	22.0	27.0	23.0	26.5	20.0	24.0	21.5
27	17.0	11.0	28.0	21.5	26.0	23.0	27.0	22.0	29.0	22.5	24.5	18.5
28	15.5	13.0	28.0	22.0	24.5	22.5	28.0	22.0	30.0	24.5	20.5	17.5
29	16.0	11.5	27.5	22.5	25.5	23.0	28.5	23.5	30.0	26.0	20.0	17.0
30	16.0	12.0	28.5	21.5	25.0	22.0	29.0	23.5	29.5	25.5	22.5	18.0
31	---	---	27.5	23.0	---	---	28.0	23.5	30.5	25.5	---	---
MONTH	22.0	7.0	28.5	12.0	28.5	15.5	33.5	22.0	30.5	20.0	31.0	17.0
YEAR	33.5	0.0										

03159510 HOCKING RIVER BELOW ATHENS, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.1	7.4	9.4	8.5	---	---	11.8	11.2	10.1	9.5	---	---
2	8.0	7.5	9.4	9.1	---	---	11.2	11.0	10.0	9.4	12.9	11.5
3	8.2	7.5	9.2	8.6	---	---	11.2	11.0	10.0	9.6	11.7	11.3
4	8.2	7.6	9.2	8.8	---	---	10.9	10.6	9.8	9.3	11.7	10.7
5	8.1	7.4	9.4	9.2	---	---	11.0	10.4	10.0	9.3	10.8	9.5
6	7.9	7.1	9.5	9.1	---	---	10.8	10.7	9.9	9.3	11.7	9.6
7	8.1	7.0	9.8	9.2	---	---	11.1	10.7	9.8	9.5	---	---
8	8.6	7.4	10.1	9.6	---	---	---	---	9.8	9.5	---	---
9	8.4	7.6	10.0	9.3	---	---	---	---	10.0	9.6	---	---
10	8.3	7.6	10.3	9.4	---	---	---	---	10.5	9.7	---	---
11	8.3	7.2	10.1	9.9	---	---	---	---	10.4	10.0	---	---
12	8.5	8.0	10.2	10.0	---	---	---	---	11.1	10.3	---	---
13	8.3	7.8	10.4	10.2	---	---	11.0	10.6	12.0	11.0	---	---
14	8.3	7.8	10.6	10.2	12.6	12.2	10.7	10.5	12.6	11.8	---	---
15	8.5	7.8	10.4	10.0	12.4	12.1	10.5	10.3	12.7	12.5	11.3	11.0
16	8.8	7.6	10.6	10.0	12.2	11.9	10.5	10.4	12.9	12.6	11.0	10.8
17	9.2	8.2	10.6	9.7	12.0	11.6	10.4	10.0	13.0	12.6	10.8	10.8
18	9.4	8.8	10.1	9.6	12.0	11.7	10.1	9.8	12.8	12.5	11.0	10.6
19	9.5	9.0	9.8	9.1	12.0	11.5	10.5	9.8	13.0	12.2	11.3	11.0
20	9.4	8.7	9.7	9.2	11.6	11.4	10.3	9.9	12.4	12.2	11.7	11.3
21	9.5	8.4	9.6	9.3	12.1	11.6	10.2	9.8	12.4	12.1	11.6	11.4
22	9.6	9.0	11.0	9.3	12.0	11.7	10.2	9.9	13.0	12.2	11.4	11.2
23	9.7	9.2	10.7	10.4	11.9	11.8	10.4	10.1	12.5	12.0	11.6	11.4
24	9.5	8.7	10.7	10.5	11.8	11.5	10.4	10.1	---	---	11.6	11.5
25	8.7	8.0	10.6	9.8	11.9	11.6	10.3	10.0	---	---	11.5	11.3
26	9.0	7.9	9.9	8.9	11.7	11.4	10.2	9.5	---	---	11.3	11.0
27	9.5	8.9	9.0	8.3	11.6	11.1	10.4	9.5	---	---	11.1	10.6
28	10.0	9.4	9.3	8.4	11.1	11.0	10.6	10.1	---	---	11.0	10.1
29	10.4	9.7	10.6	9.3	12.0	11.0	10.4	10.3	---	---	10.2	9.9
30	9.9	9.5	11.7	9.9	11.9	11.3	10.5	9.0	---	---	9.9	9.4
31	9.4	8.5	---	---	11.6	10.9	10.5	9.8	---	---	9.7	9.4
MONTH	10.4	7.0	11.7	8.3	12.6	10.9	11.8	9.0	13.0	9.3	12.9	9.4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.6	9.3	8.6	6.3	5.7	6.9	6.5	7.4	6.6	7.7	5.7
2	9.8	9.5	8.8	8.4	7.8	5.7	7.2	6.6	7.2	6.8	7.7	5.5
3	10.0	9.5	8.5	7.8	8.1	7.1	7.0	6.5	7.0	6.6	7.4	5.1
4	9.8	9.7	8.0	6.6	8.3	7.1	6.8	6.2	7.2	6.2	7.7	5.7
5	10.4	9.8	6.5	4.8	8.3	7.1	6.8	6.5	6.9	5.7	7.1	5.9
6	11.2	10.4	6.1	3.2	8.6	6.9	6.6	6.3	7.0	5.4	6.4	5.4
7	11.3	11.2	7.6	3.3	9.6	7.4	6.5	6.0	7.5	5.3	6.6	5.7
8	11.2	11.0	8.1	6.2	9.9	8.2	6.6	5.9	7.1	5.6	6.6	5.9
9	11.0	10.8	8.7	8.1	10.1	8.0	7.2	5.7	7.8	5.6	6.3	5.7
10	10.9	10.4	8.9	8.7	10.5	8.4	8.2	6.0	7.5	6.2	6.1	5.5
11	10.4	9.8	8.9	8.7	10.4	8.2	9.2	6.5	7.7	6.1	6.5	5.7
12	9.8	9.4	8.8	8.4	11.3	8.1	8.9	5.8	6.7	5.7	7.0	6.0
13	9.4	9.1	8.5	8.0	11.7	7.9	8.3	6.1	6.5	6.1	6.9	6.4
14	9.1	8.9	8.0	7.7	10.5	7.2	9.7	6.1	6.9	6.0	11.1	5.9
15	9.0	8.9	7.9	7.6	10.3	7.1	8.4	5.7	6.7	6.3	10.8	7.9
16	9.2	8.8	7.7	7.5	10.0	6.8	8.3	5.6	6.6	6.1	9.8	6.1
17	9.1	8.8	7.6	7.4	8.8	6.8	8.0	5.5	6.8	5.8	9.5	6.8
18	9.1	8.8	7.5	7.1	11.1	6.3	8.0	5.3	7.5	6.3	7.8	6.6
19	9.1	8.7	7.3	6.9	10.2	6.1	8.9	5.1	7.7	6.7	7.4	6.6
20	9.1	8.2	7.7	6.8	8.9	6.4	10.0	4.8	7.8	6.8	7.6	6.3
21	8.5	8.0	7.9	6.7	9.9	6.3	8.9	5.5	8.0	6.8	8.3	6.7
22	8.3	7.8	8.7	6.8	8.0	6.8	9.3	4.7	8.5	6.8	8.9	7.2
23	8.3	7.7	8.8	6.6	9.9	6.8	9.4	6.5	8.4	6.7	8.9	7.2
24	8.7	7.7	9.7	6.5	8.9	6.9	9.4	6.9	7.6	6.5	8.5	7.0
25	9.0	8.2	10.0	6.7	7.6	6.5	7.2	5.1	8.0	6.9	8.4	6.9
26	9.3	8.6	9.8	6.8	7.3	5.2	7.6	5.1	8.1	6.9	8.0	6.3
27	9.3	8.6	10.2	6.9	7.8	5.7	7.9	6.5	7.4	6.0	9.0	6.6
28	9.1	8.6	9.2	6.6	7.0	5.9	8.7	6.8	7.1	5.9	9.5	7.1
29	9.3	8.6	8.5	6.2	6.9	6.1	7.9	6.9	7.2	5.7	13.0	7.7
30	9.2	9.0	8.4	6.2	6.8	6.6	9.2	7.1	6.8	5.4	12.9	8.1
31	---	---	7.3	6.1	---	---	8.6	6.7	7.5	5.4	---	---
MONTH	11.3	7.7	10.2	3.2	11.7	5.2	10.0	4.7	8.5	5.3	13.0	5.1
YEAR	13.0	3.2										

03159540 SHADE RIVER NEAR CHESTER, OH

LOCATION.--Lat 39°03'49", long 81°52'55", in NE 1/4 sec. 10, T.3N., R.12W., Meigs County, Hydrologic Unit 05030202, on right bank at downstream side of bridge on Oak Hill Road, 200 ft (61 m) upstream from Sugar Run, 2.8 mi (4.5 km) southeast of Chester, and 8.5 mi (13.7 km) northeast of Pomeroy.

DRAINAGE AREA.--156 mi^2 (404 km^2), includes that of Sugar Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1956, 1962-64 (Occasional low-flow measurements), June 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 576.91 ft (175.842 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--12 years, 170 ft^3/s (4.814 m^3/s), 14.80 in/yr (376 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,170 ft^3/s (231 m^3/s) May 25, 1968, gage height, 27.39 ft (8.348 m); minimum, 0.30 ft^3/s (0.008 m^3/s) Sept. 7, 8, 9, 10, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,180 ft^3/s (61.7 m^3/s) Mar. 13, gage height, 14.85 ft (4.526 m), no peaks above base of 2,400 ft^3/s (68.0 m^3/s); minimum, 2.8 ft^3/s (0.079 m^3/s) June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 19 7
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	624	34	25	24	148	74	56	17	136	5.9	8.1
2	84	236	32	24	24	127	82	54	10	129	14	12
3	57	167	32	24	24	113	462	49	7.7	53	12	[illegible]
4	41	125	34	24	24	1260	386	179	6.8	33	6.8	36
5	34	99	32	24	24	1110	1530	163	5.9	74	5.0	54
6	29	86	37	24	24	363	673	193	5.6	56	4.3	95
7	27	78	1080	24	24	238	506	693	4.5	31	4.5	41
8	21	70	788	24	24	179	348	531	5.0	23	6.2	23
9	1220	63	220	24	25	148	236	193	16	79	6.8	17
10	819	59	150	24	31	125	191	120	31	31	6.2	14
11	177	56	120	24	249	110	159	96	15	21	6.2	9.7
12	99	50	100	24	776	118	130	79	9.7	30	16	7.4
13	72	46	85	24	1600	1920	113	68	7.4	22	32	6.2
14	50	42	80	24	1140	817	104	59	6.5	23	46	5.3
15	44	41	76	24	595	315	95	50	5.6	16	26	5.0
16	39	41	70	24	379	229	84	42	5.9	11	17	5.9
17	38	38	66	24	297	174	76	37	5.6	8.8	14	17
18	32	37	60	24	216	483	72	34	4.5	8.1	20	14
19	27	38	56	24	156	572	68	31	4.3	7.4	18	18
20	30	37	70	24	206	278	61	30	5.3	6.8	10	30
21	74	34	74	24	172	214	56	26	6.8	6.2	7.1	28
22	63	34	60	24	253	191	52	22	4.5	6.5	5.3	11
23	44	33	47	24	840	165	52	19	3.6	11	4.5	8.1
24	132	32	45	24	1250	132	65	18	3.0	9.2	316	7.1
25	390	31	36	24	826	111	55	18	4.0	17	41	6.2
26	326	32	35	24	374	101	50	25	460	64	20	5.9
27	165	35	34	24	274	93	47	21	95	32	13	5.9
28	99	35	32	24	199	99	48	15	618	13	10	5.9
29	78	42	29	24	---	113	156	12	247	8.4	9.7	11
30	83	44	28	24	---	93	83	11	98	6.8	7.7	7.7
31	1500	---	26	24	---	84	---	22	---	6.2	8.1	---
TOTAL	5977	2385	3668	745	10050	10223	6114	2966	1719.2	979.4	719.3	586.4
MEAN	193	79.5	118	24.0	359	330	204	95.7	57.3	31.6	23.2	19.5
MAX	1500	624	1080	25	1600	1920	1530	693	618	136	316	95
MIN	21	31	26	24	24	84	47	11	3.0	6.2	4.3	5.0
CFSM	1.24	.51	.76	.15	2.30	2.12	1.31	.61	.37	.20	.15	.13
IN.	1.43	.57	.87	.18	2.40	2.44	1.46	.71	.41	.23	.17	.14

CAL YR 1976 TOTAL 58738.8 MEAN 160 MAX 2140 MIN 3.8 CFSM 1.03 IN 14.01
WTR YR 1977 TOTAL 46132.3 MEAN 126 MAX 1920 MIN 3.0 CFSM .81 IN 11.00

03159540 SHADE RIVER NEAR CHESTER, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHANGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
17...	1130	174	310	7.4	9.0	9.7	84	1.3	120	65	35	8.3
JUN												
21...	1100	6.8	395	6.8	22.0	5.8	66	1.5	170	73	51	11

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
17...	8.4	2.1	69	0	57	4.4	66	7.1	.1	7.8	169	.43
JUN												
21...	13	3.2	121	0	99	31	77	11	.1	4.2	231	.09

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
17...	.01	.04	.04	2	10	7	90	7	300	.8	80	3.2
JUN												
21...	.00	.08	.03	2	10	3	150	7	1100	.0	70	6.3

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH

LOCATION.--Lat 39°21'45", long 82°18'47", in NW 1/4 sec. 11, T.11 N., R.16 W., Vinton County, Hydrologic Unit 05090101, on right bank 250 ft (76 m) upstream from Big Four Hollow Creek, 150 ft (46 m) downstream from Morgan Hollow Creek, 2.5 mi (4.0 km) southwest of Carbondale, and 3.7 mi (6.0 km) northeast of Lake Hope.

DRAINAGE AREA.--0.98 mi² (2.54 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder with concrete weir and 6-inch Parshall flume. Altitude of gage is 770.0 ft (234.70 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--7 years, 1.11 ft³/s (0.0314 m³/s), 15.38 in/yr (391 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 990 ft³/s (28.0 m³/s) June 22, 1974, gage-height, 5.01 ft (1.527 m) from rating curve extended above 30 ft³/s (0.85 m³/s); minimum, 0.02 ft³/s (0.001 m³/s) Sept. 24, 25, 1971, gage height, 0.05 ft (0.015 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 50 ft³/s (1.42 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 12	2230	53	1.50	2.43	0.741	Apr. 2	1920	*76	2.15	*2.71	0.826

Minimum discharge, 0.03 ft³/s (0.001 m³/s) Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.48	.07	.10	.04	.90	.45	.49	.12	7.3	.43	.07
2	.07	.30	.09	.09	.04	.64	13	.50	.09	1.4	.10	.07
3	.05	.27	.06	.07	.04	.84	15	.49	.07	.56	.10	.06
4	.04	.17	.09	.07	.04	10	10	.55	.07	2.5	.08	.05
5	.04	.12	.06	.06	.04	2.2	9.2	.96	.11	2.3	.07	.06
6	.05	.12	.29	.06	.04	1.6	6.6	1.7	.16	.69	.08	.05
7	.07	.11	2.5	.06	.04	1.3	4.7	8.4	.13	.16	.08	.05
8	.08	.08	.78	.06	.04	1.0	2.9	3.2	.08	.12	.08	.04
9	1.2	.13	.33	.06	.05	.92	2.1	1.5	.18	.10	.08	.04
10	.29	.09	.33	.06	.12	.75	1.9	1.1	.07	.12	.10	.05
11	.13	.07	1.0	.06	.81	.62	1.6	.72	.07	.94	.15	.03
12	.10	.08	.95	.06	3.9	4.7	1.3	.65	.09	.97	.37	.03
13	.11	.07	.41	.06	4.0	10	1.2	.57	.07	.49	.16	.07
14	.07	.09	.34	.06	1.6	2.4	1.1	.45	.14	.23	.16	.06
15	.07	.10	.34	.06	.97	1.9	.72	.32	.08	.17	.11	.13
16	.06	.08	.30	.06	.84	1.5	.54	.26	.08	.14	.11	.51
17	.05	.10	.21	.06	.71	1.2	.49	.26	.08	.13	.11	.12
18	.04	.10	.12	.05	.61	1.5	.48	.24	.12	.11	.07	.10
19	.06	.08	.18	.05	.52	1.7	.57	.20	.10	.10	.06	.10
20	.14	.07	.32	.05	.44	1.8	.53	.16	.07	.09	.07	.08
21	.10	.08	.16	.05	.35	1.7	.47	.15	.06	.19	.08	.06
22	.05	.08	.15	.05	1.6	1.7	.44	.14	.06	.14	.08	.05
23	.05	.07	.13	.05	2.4	1.6	.48	.13	.07	.08	.05	.05
24	.40	.08	.12	.05	8.0	1.3	.50	.13	.07	.11	.12	.07
25	.64	.08	.10	.05	3.3	.96	.44	.15	1.2	.64	.06	.07
26	.47	.08	.10	.04	1.8	.85	.40	.14	1.9	.18	.06	.10
27	.23	.10	.10	.04	1.6	.87	.35	.13	.68	.10	.07	.06
28	.10	.09	.10	.04	.95	1.0	.35	.12	3.1	.10	.05	.05
29	.12	.10	.10	.04	---	.73	.44	.13	3.1	.13	.05	.04
30	.49	.05	.10	.04	---	.64	.47	.10	1.6	.11	.06	.04
31	2.6	---	.10	.04	---	.50	---	.10	---	.10	.07	---
TOTAL	8.06	3.52	10.03	1.75	34.89	59.32	78.72	24.14	13.82	20.50	3.32	2.36
MEAN	.26	.12	.32	.056	1.25	1.91	2.62	.78	.46	.66	.11	.079
MAX	2.6	.48	2.5	.10	8.0	10	15	8.4	3.1	7.3	.43	.51
MIN	.04	.05	.06	.04	.04	.50	.35	.10	.06	.08	.05	.03
CFSM	.27	.12	.33	.06	1.28	1.95	2.67	.80	.47	.67	.11	.08
IN.	.31	.13	.38	.07	1.32	2.25	2.99	.92	.52	.78	.13	.09

CAL YR 1976 TOTAL 333.82 MEAN .91 MAX 26 MIN .03 CFSM .93 IN 12.67
WTR YR 1977 TOTAL 260.43 MEAN .71 MAX 15 MIN .03 CFSM .72 IN 9.88

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1971 to current year.
pH: January 1971 to current year.
WATER TEMPERATURES: January 1971 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1971.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,100 micromhos Oct. 21, 22, 1971; minimum, 90 micromhos July 11, 1976.
pH: Maximum, 7.5 units Dec. 6, 1971; minimum, 1.9 units Apr. 10, 1973.
WATER TEMPERATURES: Maximum, 33.5°C Aug. 2, 1973; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,760 micromhos Sept. 30; minimum, 141 micromhos Apr. 2.
pH: Maximum, 6.3 units July 4; minimum, 2.3 units July 17, Aug. 5.
WATER TEMPERATURES: Maximum, 29.0°C July 14, 15; minimum, 0.0°C on many days during November to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1130	1.2	530	3.6	6.5	11.6	94	.2	150	150	34	15
JUN 15...	1000	.08	1600	2.7	17.0	6.6	68	.0	440	440	93	51

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	10	1.9	0	0	0	.0	200	11	.1	15	294	.06
JUN 15...	24	3.1	0	0	0	.0	720	19	.2	39	981	.27

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.00	.13	.00	0	<10	6	5300	3	870	.0	190	7.9
JUN 15...	.00	.37	.02	1	10	17	22000	12	4200	.0	480	7.6

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1500	1440	579	378	1670	1360	1190	1100	1410	1260	723	627
2	1520	1490	633	393	1550	1310	1230	1120	1290	1230	720	432
3	1570	1520	660	624	1540	1280	1490	1140	1530	1230	927	630
4	1600	1570	---	---	1650	1330	1360	1130	1600	1430	426	255
5	1710	1600	---	---	1380	1290	1310	1120	1460	1150	411	327
6	1790	1720	---	---	1740	372	1450	1090	1250	1160	534	411
7	1780	1450	1200	1040	351	285	1490	1210	1350	1130	552	531
8	1630	1430	1020	945	558	354	1200	1140	1600	1240	687	498
9	1620	366	1570	951	483	354	1520	1090	1810	1630	768	672
10	837	645	1450	1080	819	519	1560	1250	1680	1380	747	690
11	1040	840	1080	1060	687	342	1240	1190	1380	372	810	684
12	1610	1020	1080	1050	777	354	1190	1160	639	270	882	168
13	1680	1500	1100	1040	684	342	---	---	264	228	384	213
14	1580	1350	1560	1090	876	366	---	---	486	315	438	372
15	1730	1330	1530	1300	900	831	---	---	765	444	630	444
16	1640	1440	1310	1210	966	813	---	---	1040	537	624	471
17	1460	1430	1790	1190	840	726	---	---	1000	735	855	537
18	1470	1440	1750	1360	831	744	---	---	1100	987	891	228
19	1850	1460	1360	1280	1110	783	---	---	1010	873	363	282
20	1830	1220	1280	1240	1160	717	---	---	891	861	531	381
21	1300	1240	1490	1250	831	714	---	---	933	799	753	393
22	1370	1270	1430	1290	1200	786	---	---	1170	309	732	426
23	1340	1230	1310	1280	1190	966	---	---	603	246	576	387
24	1220	387	1590	1320	1260	1020	---	---	396	276	---	---
25	810	573	1560	1400	1400	1000	---	---	456	348	---	---
26	765	630	1520	1420	1190	906	1360	1150	609	411	---	---
27	819	684	1480	1250	1290	882	1420	1150	657	504	912	759
28	924	819	1260	1010	1250	948	1360	1130	615	432	900	759
29	1490	1130	1260	987	1010	927	1170	1100	---	---	819	585
30	1430	294	1410	1280	1040	972	1180	1080	---	---	834	585
31	363	234	---	---	1110	1020	1380	1100	---	---	819	585
MONTH	1850	234	1790	378	1740	285	1560	1080	1810	228	927	168

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	996	558	939	882	1650	1550	738	219	1300	303	2100	1650
2	1060	141	924	864	1600	1550	957	756	1470	1310	2070	1850
3	330	165	930	339	1580	1540	1320	963	1720	1470	2110	2060
4	469	183	783	519	1730	1570	1380	252	1730	1640	2240	2110
5	282	219	729	471	1840	1690	1130	621	1810	1690	2260	2220
6	273	261	606	309	1950	1720	1300	1140	1960	1820	2250	2210
7	510	276	357	183	1900	1740	1330	1290	1990	1910	2230	2170
8	498	414	534	315	1740	1460	1370	1330	1990	1830	2260	2200
9	618	447	522	447	1520	945	1390	1340	1900	1860	2360	2260
10	687	615	603	483	1540	1410	1390	993	1940	1580	2380	2340
11	639	582	612	540	1520	1420	1560	183	1800	453	2360	2330
12	732	609	789	513	1670	1540	864	270	1570	507	2350	2320
13	840	729	891	783	1770	1600	840	540	1560	1320	2520	2350
14	828	720	882	816	1760	1180	1120	819	1580	1160	2530	2480
15	759	690	825	756	1730	1370	1330	1150	1530	1460	2480	702
16	798	729	891	789	1860	1730	1410	1360	1870	1460	1360	363
17	855	798	1100	900	1920	1870	1520	1430	1890	1680	1850	1390
18	879	483	1110	1030	---	---	1550	1490	1780	1720	2100	1870
19	771	678	1120	1010	---	---	1660	1560	1840	1750	2120	1520
20	828	765	1160	1080	---	---	1710	1650	1960	1850	1990	1820
21	885	816	1210	1120	2490	1890	1740	642	2110	1970	2030	1770
22	897	816	1240	1180	1920	1850	1550	966	2120	2010	2070	2020
23	1020	849	1280	1210	1990	1840	1740	1540	2000	1940	2210	2060
24	1010	939	1380	1220	2080	2000	1880	1780	1970	1100	2280	2210
25	939	750	1420	1330	2100	210	1880	252	1890	1830	2290	2240
26	873	789	1460	1420	1330	372	1300	912	2050	1850	2230	1470
27	918	771	1470	1410	1430	315	1460	1300	1990	1950	2130	2100
28	927	318	1520	1430	1090	321	1760	1460	2020	1980	2370	2130
29	558	408	1540	1150	1030	381	1770	1480	2150	2030	2400	2170
30	894	600	1430	1270	1240	159	1690	1630	2170	2020	2760	2230
31	---	---	1610	1430	---	---	1750	1450	2100	1930	---	---
MONTH	1060	141	1610	183	2490	159	1880	183	2170	303	2760	363
YEAR	2760	141										

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3.1	3.1	3.7	3.1	---	---	2.9	2.8	---	---	4.0	3.5
2	---	---	3.2	3.1	---	---	3.0	2.8	---	---	4.4	3.9
3	---	---	3.2	3.1	---	---	2.9	2.8	---	---	3.9	3.7
4	3.1	3.0	3.4	3.1	---	---	3.1	2.8	---	---	6.2	4.8
5	3.0	2.8	3.2	3.0	---	---	3.1	3.0	---	---	4.8	4.2
6	2.9	2.8	3.2	3.0	---	---	3.1	2.7	---	---	4.2	3.2
7	3.1	2.8	3.2	3.1	3.9	3.0	3.0	2.8	---	---	4.0	3.7
8	3.1	3.0	3.1	2.9	3.4	2.9	3.1	2.8	---	---	4.2	3.9
9	4.5	3.2	2.9	2.9	3.1	2.8	3.0	2.8	2.9	2.7	4.1	3.9
10	3.6	3.3	3.0	2.9	2.8	2.7	3.0	2.9	3.0	2.6	4.0	3.9
11	3.4	3.2	3.1	3.0	3.0	2.7	3.0	2.9	4.7	2.8	4.1	3.8
12	3.3	3.1	3.1	3.0	---	---	3.0	2.9	4.6	2.9	5.6	3.8
13	3.1	3.0	3.1	3.0	---	---	---	---	4.3	3.7	5.6	4.6
14	3.2	3.1	3.1	3.0	---	---	---	---	4.2	3.7	4.6	4.4
15	3.2	3.0	3.0	3.0	---	---	---	---	4.2	3.5	4.4	3.9
16	3.1	3.0	3.1	2.9	---	---	---	---	3.8	3.1	4.2	4.0
17	3.1	3.1	3.1	2.9	3.2	3.1	---	---	3.3	2.9	4.2	3.9
18	3.2	3.0	2.9	2.8	3.3	3.0	---	---	---	---	6.0	3.9
19	3.0	2.8	2.9	2.7	3.2	2.9	---	---	---	---	5.5	4.7
20	3.0	2.8	2.9	2.7	3.2	2.9	---	---	---	---	4.7	4.2
21	3.0	2.8	2.9	2.9	3.1	3.0	---	---	---	---	4.7	4.0
22	3.0	2.8	3.0	2.9	3.1	2.9	---	---	---	---	4.6	4.1
23	3.0	2.8	3.1	2.9	3.0	2.7	---	---	---	---	4.9	4.2
24	4.1	2.9	2.9	2.7	2.9	2.6	---	---	---	---	4.3	4.2
25	3.4	3.2	3.1	2.8	3.1	2.8	---	---	---	---	4.2	4.0
26	3.3	3.1	2.9	2.8	3.2	2.9	---	---	---	---	4.1	3.9
27	3.2	3.1	2.8	2.7	3.1	2.7	---	---	---	---	4.0	3.8
28	3.1	3.1	2.9	2.8	3.0	2.8	---	---	---	---	4.0	3.8
29	3.2	3.1	3.0	2.8	3.0	2.7	---	---	---	---	4.1	3.6
30	4.3	3.1	---	---	3.0	2.8	---	---	---	---	4.1	3.7
31	4.5	3.4	---	---	3.0	2.8	---	---	---	---	4.2	3.8
MONTH	4.5	2.8	3.7	2.7	3.9	2.6	3.1	2.7	4.7	2.6	6.2	3.2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.4	3.7	3.5	3.4	2.8	2.6	5.9	3.2	5.8	2.7	2.7	2.4
2	5.7	3.7	3.5	3.3	2.8	2.7	3.3	2.9	2.9	2.6	2.7	2.5
3	5.5	4.5	4.6	3.4	2.9	2.7	3.1	2.8	2.8	2.4	2.7	2.5
4	5.7	3.9	3.8	3.5	2.9	2.6	6.3	2.8	2.7	2.5	2.7	2.5
5	5.7	4.7	3.9	3.7	2.7	2.6	3.6	2.7	2.6	2.3	2.6	2.4
6	5.7	5.6	5.9	3.6	2.7	2.6	2.9	2.6	2.6	2.4	2.6	2.6
7	5.6	4.2	6.1	4.7	2.8	2.7	2.8	2.6	2.6	2.4	2.7	2.5
8	4.4	4.2	4.7	3.4	2.9	2.8	2.8	2.6	2.6	2.5	---	---
9	4.4	4.1	3.6	3.5	3.2	2.7	2.8	2.6	2.6	2.5	---	---
10	4.1	3.7	3.6	3.4	2.9	2.8	3.0	2.7	2.6	2.5	---	---
11	4.1	3.8	3.5	3.2	2.9	2.8	6.2	2.6	4.6	2.5	---	---
12	4.0	3.7	3.5	3.2	2.8	2.7	6.2	3.1	4.4	2.8	---	---
13	3.9	3.6	3.4	3.0	2.8	2.4	3.7	3.0	2.8	2.7	---	---
14	3.8	3.7	3.3	3.1	3.0	2.5	3.1	2.7	2.9	2.5	---	---
15	3.9	3.6	3.4	3.1	2.9	2.6	2.9	2.6	2.7	2.5	3.3	2.6
16	3.9	3.6	3.3	3.0	2.8	2.6	2.8	2.6	3.1	2.5	5.7	2.9
17	3.8	3.6	3.2	2.9	2.7	2.5	2.8	2.3	3.2	2.5	2.9	2.6
18	4.2	3.6	3.1	2.9	3.2	2.6	2.7	2.4	2.7	2.6	2.7	2.5
19	3.9	3.7	3.0	2.8	3.0	2.6	---	---	2.7	2.6	2.7	2.6
20	3.8	3.6	3.1	2.8	2.7	2.6	---	---	2.9	2.5	2.7	2.7
21	3.7	3.6	3.0	2.8	2.7	2.6	---	---	2.8	2.5	2.7	2.6
22	3.7	3.6	3.0	2.8	2.7	2.7	---	---	2.6	2.5	2.7	2.6
23	3.6	3.3	3.0	2.8	2.8	2.6	---	---	2.8	2.6	2.7	2.5
24	3.7	3.6	2.9	2.7	2.7	2.6	---	---	3.1	2.7	2.7	2.6
25	---	---	2.9	2.8	5.9	2.6	---	---	2.8	2.6	2.7	2.6
26	3.3	3.2	2.9	2.7	4.5	2.6	---	---	2.8	2.6	2.9	2.6
27	3.3	3.2	2.9	2.7	6.2	2.7	---	---	2.7	2.4	2.7	2.6
28	4.7	3.2	2.9	2.6	6.1	2.9	2.8	2.5	2.7	2.3	2.7	2.6
29	4.3	3.7	2.9	2.6	5.7	2.9	2.7	2.6	2.7	2.4	2.7	2.6
30	3.6	3.4	2.9	2.7	6.2	2.9	2.7	2.5	2.7	2.5	2.7	2.5
31	---	---	2.8	2.6	---	---	2.7	2.5	2.7	2.4	---	---
MONTH	5.7	3.2	6.1	2.6	6.2	2.4	6.3	2.3	5.8	2.3	5.7	2.4
YEAR	6.3	2.3										

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	11.0	8.5	3.5	0.5	0.0	0.5	0.0	0.5	0.0	---	---
2	16.5	11.5	8.5	3.0	0.5	0.0	0.0	0.0	0.5	0.0	---	---
3	16.5	8.0	11.0	6.0	0.5	0.0	0.0	0.0	0.5	0.5	---	---
4	16.0	8.0	6.0	2.5	0.5	0.0	1.0	0.0	---	---	---	---
5	17.5	10.5	5.5	2.5	1.0	0.0	1.0	0.0	---	---	---	---
6	15.5	12.0	7.5	2.0	0.0	0.0	0.5	0.0	---	---	---	---
7	13.0	11.5	7.0	3.0	2.0	0.0	1.5	0.0	---	---	---	---
8	12.5	10.5	5.0	2.0	1.0	0.0	1.0	0.0	---	---	10.0	2.5
9	10.5	8.0	6.5	2.0	0.5	0.0	0.0	0.0	---	---	11.0	1.0
10	12.5	4.5	5.5	2.0	2.0	0.0	0.0	0.0	---	---	10.0	2.0
11	13.5	5.0	4.5	2.5	4.5	1.5	0.0	0.0	---	---	13.5	1.5
12	14.0	4.0	6.0	2.0	6.5	2.5	0.0	0.0	---	---	9.0	6.5
13	15.5	7.0	---	---	3.0	0.0	---	---	---	---	8.0	5.0
14	11.0	5.0	---	---	1.0	0.0	---	---	---	---	10.0	4.0
15	14.0	5.0	---	---	4.0	0.0	---	---	---	---	14.0	3.0
16	10.5	6.0	---	---	3.5	0.0	---	---	---	---	12.5	4.0
17	8.5	5.0	---	---	4.0	0.0	---	---	---	---	8.0	1.5
18	8.5	1.5	6.0	3.5	2.0	0.0	---	---	---	---	9.5	4.5
19	10.0	4.0	7.0	3.5	4.0	0.0	---	---	---	---	8.0	4.0
20	8.5	6.5	5.5	1.5	4.5	1.0	---	---	---	---	5.5	2.5
21	7.0	6.0	4.0	0.0	1.0	0.0	---	---	---	---	11.5	0.5
22	6.5	3.5	2.5	0.5	0.0	0.0	---	---	---	---	6.0	1.5
23	6.5	1.5	2.5	1.0	0.0	0.0	---	---	---	---	8.5	0.5
24	10.5	6.0	0.0	0.0	0.0	0.0	---	---	---	---	9.5	0.5
25	11.0	9.5	---	---	0.0	0.0	---	---	---	---	10.5	0.5
26	9.5	6.0	---	---	0.0	0.0	0.5	0.0	---	---	12.0	1.0
27	6.5	3.5	---	---	0.0	0.0	1.5	0.0	---	---	12.0	3.0
28	6.5	1.0	---	---	0.5	0.0	0.5	0.0	---	---	12.0	7.5
29	7.5	0.5	---	---	0.0	0.0	0.0	0.0	---	---	18.0	7.5
30	7.0	3.5	---	---	0.0	0.0	0.0	0.0	---	---	19.5	8.0
31	8.5	7.0	---	---	0.0	0.0	0.0	0.0	---	---	13.0	5.5
MONTH	17.5	0.5	11.0	0.0	6.5	0.0	1.5	0.0	0.5	0.0	19.5	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	3.0	20.5	6.5	22.0	15.5	26.0	18.0	26.0	19.5	26.0	20.5
2	11.5	8.5	19.5	11.5	21.0	17.0	25.0	16.0	25.0	17.0	26.0	20.5
3	11.0	7.0	18.0	10.5	20.0	13.0	24.5	16.0	25.5	17.0	24.5	20.5
4	11.5	7.0	16.0	12.0	21.0	12.5	22.5	16.5	25.0	18.5	24.5	19.0
5	7.5	4.5	20.0	11.5	19.5	14.0	29.0	18.0	26.0	20.0	25.0	20.0
6	6.5	3.0	17.5	12.0	21.0	15.0	29.0	19.0	26.5	20.5	22.5	21.0
7	10.5	2.0	17.0	12.5	17.5	11.5	28.0	20.0	26.5	21.5	24.0	20.0
8	12.5	3.5	19.5	9.0	15.0	10.5	27.5	20.5	24.0	21.5	24.0	19.0
9	12.5	1.5	19.5	7.5	19.0	13.0	25.5	21.5	25.0	21.5	24.0	19.5
10	17.0	3.5	15.5	6.0	21.0	9.0	23.0	20.5	25.0	21.0	23.0	19.0
11	19.0	6.0	20.0	6.5	16.5	12.0	25.5	19.0	25.5	21.0	21.5	17.0
12	19.5	7.0	19.0	7.0	23.0	14.0	24.0	19.0	23.0	21.0	20.5	16.0
13	19.5	8.0	22.5	9.0	24.0	15.5	28.5	19.5	23.0	20.5	22.0	17.5
14	17.5	8.5	20.5	10.5	22.0	18.0	29.0	19.0	27.0	20.5	21.0	18.5
15	20.5	8.0	23.5	10.0	25.0	18.0	29.0	19.0	26.5	20.5	21.5	18.0
16	20.5	7.5	24.5	9.5	23.5	16.0	26.0	20.5	27.0	21.0	23.5	20.0
17	17.5	9.0	24.5	11.5	24.5	16.5	28.5	20.0	23.5	20.5	23.5	19.0
18	19.5	9.0	25.0	13.5	24.0	18.0	28.5	20.0	22.5	18.0	23.5	18.0
19	17.5	10.5	26.0	14.0	24.0	18.5	28.5	21.5	22.5	16.5	23.5	19.0
20	21.5	11.0	25.5	13.5	24.0	19.0	28.5	21.5	22.0	16.5	21.0	18.5
21	20.5	12.0	25.5	14.5	22.5	16.0	26.0	22.0	22.0	16.0	20.0	16.5
22	18.0	13.5	24.0	14.0	18.5	16.5	26.5	21.5	22.5	18.0	21.0	16.0
23	16.5	13.0	25.0	15.5	22.0	14.0	25.0	18.0	23.0	17.5	21.0	16.0
24	13.0	10.5	25.0	15.0	21.5	17.0	25.5	17.5	22.0	19.0	20.5	16.0
25	11.0	8.0	22.0	16.0	24.0	18.0	26.0	20.5	21.5	16.0	21.5	17.5
26	13.0	7.0	24.5	13.5	26.0	18.0	24.0	17.5	23.5	16.5	22.0	18.0
27	19.5	4.5	25.0	13.5	23.5	17.5	23.0	16.5	24.5	18.5	20.5	16.0
28	12.5	8.0	24.5	14.5	25.0	19.5	24.5	16.0	25.0	20.0	17.5	14.5
29	18.0	5.0	24.0	15.5	26.5	19.0	21.5	18.5	25.0	20.0	17.5	13.0
30	19.0	5.0	25.0	15.0	24.0	16.0	24.5	19.0	25.0	20.5	17.5	13.0
31	---	---	24.0	16.5	---	---	26.0	18.5	25.5	20.0	---	---
MONTH	21.5	1.5	26.0	6.0	26.5	9.0	29.0	16.0	27.0	16.0	26.0	13.0
YEAR	29.0	0.0										

03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH

LOCATION.--Lat 39°21'48", long 82°18'51", in SE 1/4 NE 1/4 sec. 11, T.11 N., R.16 W., Vinton County, Hydrologic Unit 05090101, on right bank 200 ft (61 m) upstream from State Route 278 crossing, 300 ft (91 m) upstream from Sandy Run, 2.5 mi (4.0 km) southwest of Carbondale, and 3.7 mi (6.0 km) northeast of Lake Hope.

DRAINAGE AREA.--1.01 mi² (2.62 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder with concrete weir and 6-inch Parshall flume. Altitude of gage is 770.0 ft (234.70 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--7 years, 1.08 ft³/s (0.0306 m³/s), 14.52 in/yr (369 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) June 24, 1974, gage height, 4.72 ft (1.439 m) from rating curve extended above 30 ft³/s (0.85 m³/s); no flow July 30 to Aug. 3, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59 ft³/s (1.67 m³/s) Apr. 2 (base, 50 ft³/s, 1.42 m³/s), gage height, 2.51 ft (0.765 m); minimum, no flow Sept. 8-14, 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.75	.04	.09	.04	.88	.33	.29	.08	3.0	.32	.01
2	.08	.44	.06	.09	.04	.71	7.4	.27	.06	.34	.07	.01
3	.07	.33	.05	.09	.04	4.9	1.3	.97	.05	.18	.03	.01
4	.06	.28	.06	.07	.04	1.9	4.7	1.1	.04	.69	.02	.01
5	.05	.23	.07	.07	.04	1.3	3.6	.98	.05	.46	.02	.01
6	.05	.18	.15	.07	.04	.98	3.0	1.5	.06	.22	.02	.01
7	.06	.16	3.6	.07	.04	.75	2.6	7.2	.04	.12	.01	.01
8	.06	.13	1.2	.07	.04	.90	1.7	2.5	.04	.08	.01	.00
9	1.1	.12	.53	.06	.05	.78	1.2	1.3	.13	.06	.02	.00
10	.35	.12	.47	.06	.11	.66	1.1	.92	.05	.08	.02	.00
11	.17	.10	1.1	.06	.76	.57	.99	.67	.04	.59	.04	.00
12	.12	.09	1.0	.06	3.0	2.5	.82	.50	.04	.80	.31	.00
13	.10	.08	.59	.05	4.5	4.0	.81	.38	.03	.46	.11	.00
14	.08	.07	.44	.05	2.8	1.7	.76	.30	.09	.21	.09	.00
15	.07	.08	.39	.05	1.4	1.1	.65	.25	.05	.11	.05	.05
16	.06	.07	.31	.05	.95	.83	.60	.20	.03	.09	.05	.38
17	.05	.07	.29	.05	.80	.75	.63	.17	.03	.09	.05	.07
18	.05	.06	.24	.05	.55	5.8	.32	.14	.04	.06	.02	.03
19	.05	.06	.25	.05	.52	2.3	.14	.13	.07	.04	.02	.02
20	.08	.06	.35	.05	.50	1.7	.28	.11	.03	.03	.01	.02
21	.08	.05	.22	.05	.40	1.3	.26	.11	.03	.15	.01	.01
22	.07	.06	.17	.05	1.5	1.7	.26	.11	.03	.12	.01	.01
23	.06	.05	.14	.04	7.5	1.3	.31	.10	.03	.04	.01	.01
24	.96	.04	.13	.04	9.8	1.1	.28	.09	.02	.03	.04	.01
25	.60	.06	.12	.04	6.8	.80	.26	.09	.40	.49	.01	.01
26	.31	.07	.11	.04	3.0	.65	.25	.08	.75	.19	.01	.02
27	.20	.09	.11	.04	1.6	.57	.23	.07	.16	.08	.01	.00
28	.15	.08	.11	.04	1.1	.72	.55	.07	.80	.04	.01	.00
29	.12	.09	.10	.04	---	.57	.50	.08	.70	.06	.01	.00
30	.30	.04	.10	.04	---	.49	.32	.07	.33	.05	.01	.00
31	3.2	---	.10	.04	---	.39	---	.06	---	.03	.01	---
TOTAL	8.84	4.11	12.60	1.72	47.96	44.60	36.15	20.81	4.30	8.99	1.43	.71
MEAN	.29	.14	.41	.055	1.71	1.44	1.21	.67	.14	.29	.046	.024
MAX	3.2	.75	3.6	.09	9.8	5.8	7.4	7.2	.80	3.0	.32	.38
MIN	.05	.04	.04	.04	.04	.39	.14	.06	.02	.03	.01	.00
CFSM	.29	.14	.41	.05	1.69	1.43	1.20	.66	.14	.29	.05	.02
IN.	.33	.15	.46	.06	1.76	1.64	1.33	.77	.16	.33	.05	.03

CAL YR 1976 TOTAL 289.71 MEAN .79 MAX 33 MIN .01 CFSM .78 IN 10.67
WTR YR 1977 TOTAL 192.22 MEAN .53 MAX 9.8 MIN .00 CFSM .53 IN 7.07

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03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1971 to current year.
pH: January 1971 to current year.
WATER TEMPERATURES: January 1971 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,530 micromhos Sept. 13, 1973; minimum, 72 micromhos Oct. 17, 1975.
pH: Maximum, 6.3 units July 1, 1977; minimum, 2.1 units on several days during October and December 1971, February and March 1972, December 1973.
WATER TEMPERATURES: Maximum, 34.5°C Aug. 12, 1973; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 945 micromhos Sept. 15; minimum, 93 micromhos Feb. 24.
pH: Maximum, 6.3 units July 1; minimum, 3.2 units Nov. 16.
WATER TEMPERATURES: Maximum, 32.0°C July 18, 20; minimum, 0.0°C on many days during November to March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1500	1.2	300	4.8	10.0	11.0	97	.0	110	110	27	11
JUN 15...	1100	.04	660	3.5	18.0	7.7	81	.0	260	260	62	25

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	5.2	2.1	2	0	2	51	120	4.1	.1	12	184	.10
JUN 15...	6.7	2.7	0	0	0	.0	290	1.8	.2	26	419	.11

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.00	.05	.01	0	60	5	450	6	1100	.0	130	5.2
JUN 15...	.00	.08	.01	1	<10	9	210	4	3600	.0	170	7.0

03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMMOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	642	621	360	312	654	621	621	588	---	---	327	285
2	651	639	387	354	621	606	627	612	---	---	363	258
3	663	651	417	384	636	615	627	609	699	684	348	291
4	678	654	432	402	633	630	609	591	681	654	273	168
5	687	666	456	423	654	633	594	588	651	639	234	198
6	687	675	480	453	657	396	597	588	663	648	252	225
7	684	660	507	468	366	237	597	588	687	666	270	240
8	672	663	510	477	348	270	612	597	723	687	297	255
9	666	333	528	489	360	327	621	612	813	720	315	276
10	507	432	525	492	369	339	618	594	795	723	327	288
11	546	510	534	480	330	297	627	600	699	228	348	324
12	576	546	570	489	324	303	648	627	255	147	---	---
13	591	570	579	489	372	315	678	651	195	129	---	---
14	606	588	585	429	375	330	678	660	228	201	---	---
15	624	600	597	507	378	348	660	648	327	231	---	---
16	624	612	609	519	405	333	654	639	366	231	---	---
17	633	621	618	483	444	405	675	651	375	249	---	---
18	651	630	603	525	471	435	717	675	348	294	---	---
19	657	645	615	600	474	450	---	---	342	267	---	---
20	654	600	621	603	462	414	---	---	357	267	---	---
21	630	606	618	609	489	438	---	---	408	327	---	---
22	645	630	630	609	528	495	---	---	504	240	258	249
23	648	633	633	621	522	480	---	---	366	117	---	---
24	630	342	633	624	579	528	---	---	207	93	285	264
25	432	378	633	618	603	537	---	---	246	210	294	282
26	468	432	624	618	534	495	---	---	258	246	297	291
27	498	468	618	603	519	501	---	---	285	246	303	294
28	528	492	606	549	516	510	---	---	309	270	309	303
29	552	531	600	558	540	513	---	---	---	---	324	306
30	555	237	639	603	558	543	---	---	---	---	321	315
31	312	198	---	---	588	552	---	---	---	---	345	339
MONTH	687	198	639	312	657	237	717	588	813	93	363	168

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	360	345	438	420	597	576	387	195	591	414	813	780
2	354	294	450	438	615	600	462	390	627	594	798	786
3	---	---	453	288	630	618	516	465	645	627	807	795
4	---	---	354	312	639	633	531	246	663	645	831	660
5	189	180	363	321	651	630	462	375	675	663	816	585
6	207	192	363	348	651	615	522	465	693	678	837	558
7	222	207	---	---	663	645	564	525	702	690	858	750
8	243	201	---	---	675	594	591	567	714	702	858	690
9	258	243	288	249	627	558	603	591	708	699	834	669
10	273	258	315	270	648	627	606	546	714	687	855	735
11	---	---	345	288	657	648	594	231	702	537	906	669
12	---	---	363	300	666	654	426	273	603	468	930	777
13	---	---	381	363	675	660	429	345	609	567	927	696
14	---	---	396	381	672	600	495	432	615	576	909	627
15	---	---	414	396	657	636	534	495	633	618	945	678
16	---	---	429	417	675	657	558	534	651	630	942	927
17	---	---	516	432	690	672	582	555	660	636	933	837
18	---	---	501	471	705	594	600	585	687	660	807	624
19	---	---	480	462	660	600	618	600	711	690	771	741
20	378	369	486	477	681	660	636	618	729	711	792	762
21	447	378	492	483	696	675	648	438	744	726	816	792
22	441	420	501	495	699	687	609	507	744	738	834	819
23	429	402	507	498	702	690	630	612	762	744	846	831
24	432	417	513	504	708	702	645	633	762	690	846	837
25	438	429	519	513	720	243	645	273	747	720	852	840
26	453	432	525	519	567	333	543	444	768	747	855	780
27	465	453	534	522	585	330	585	543	759	741	849	816
28	465	303	543	531	480	312	636	588	774	756	870	849
29	384	330	558	504	480	327	639	603	789	720	885	870
30	420	384	540	522	513	165	645	618	795	780	900	885
31	---	---	591	540	---	---	663	594	798	786	---	---
MONTH	465	180	591	249	720	165	663	195	798	414	945	558
YEAR	945	93										

03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.0	3.8	5.0	4.5	4.4	4.2	3.9	3.3	---	---	4.9	4.5
2	4.0	3.9	4.6	4.1	4.3	4.2	3.8	3.4	---	---	5.0	4.2
3	4.0	3.8	4.3	4.1	4.5	4.3	3.8	3.5	---	---	4.7	4.2
4	4.1	3.8	4.3	4.0	4.4	4.2	3.7	3.5	---	---	6.2	5.1
5	4.1	3.8	4.1	3.9	4.4	4.1	3.8	3.4	---	---	5.9	5.5
6	4.1	3.9	4.1	3.9	4.6	4.1	3.8	3.6	---	---	5.5	5.3
7	4.0	3.9	4.1	3.9	5.9	4.6	3.9	3.4	---	---	5.4	4.8
8	4.0	3.9	4.0	3.8	5.6	4.8	4.0	3.6	---	---	5.1	4.5
9	5.1	3.9	4.3	3.8	5.0	4.6	3.8	3.7	---	---	4.9	4.3
10	4.3	3.9	4.4	4.2	4.7	4.5	4.0	3.6	---	---	4.8	4.4
11	4.1	3.8	4.4	4.3	5.5	4.7	4.0	3.8	---	---	4.7	3.8
12	4.1	3.9	4.4	3.9	5.4	5.0	3.9	3.6	6.0	4.7	5.9	4.3
13	4.0	3.8	4.1	3.8	5.3	4.8	4.0	3.7	5.9	5.5	---	---
14	4.1	3.8	4.0	3.8	4.9	4.7	3.7	3.5	5.7	5.6	---	---
15	4.1	3.9	4.1	3.8	4.8	4.5	3.7	3.6	5.6	4.7	---	---
16	4.2	3.9	4.0	3.2	4.7	4.5	4.0	3.7	5.6	4.5	---	---
17	4.1	4.0	3.8	3.3	4.6	4.5	4.1	3.9	5.2	4.1	---	---
18	4.2	3.9	4.1	3.5	4.5	4.3	4.1	3.5	4.8	4.2	---	---
19	4.1	3.9	4.2	3.9	4.5	4.4	---	---	4.7	4.2	---	---
20	4.1	4.0	4.4	3.7	4.4	4.0	---	---	4.7	3.8	---	---
21	4.1	4.0	4.1	3.9	4.5	4.4	---	---	4.4	3.7	---	---
22	4.2	3.9	4.0	3.7	4.5	4.4	---	---	5.1	3.7	---	---
23	4.2	4.0	4.3	3.6	4.5	4.4	---	---	5.5	4.1	---	---
24	5.1	4.1	4.4	4.2	4.4	4.3	---	---	5.7	5.2	---	---
25	4.6	4.2	4.3	3.9	4.4	3.4	---	---	5.5	5.2	5.2	4.9
26	4.2	4.1	4.2	4.2	3.8	3.6	---	---	5.3	5.1	5.1	4.9
27	4.3	3.9	4.3	4.2	3.9	3.7	---	---	5.2	4.7	4.9	4.8
28	3.9	3.5	4.3	4.2	3.8	3.5	---	---	4.9	4.5	4.8	4.7
29	4.1	3.6	4.3	3.9	3.9	3.8	---	---	---	---	4.7	4.5
30	5.7	4.0	4.4	3.9	4.0	3.6	---	---	---	---	4.7	4.6
31	5.9	5.0	---	---	3.9	3.7	---	---	---	---	5.6	4.4
MONTH	5.9	3.5	5.0	3.2	5.9	3.4	4.1	3.3	6.0	3.7	6.2	3.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.6	4.4	4.2	4.0	3.8	3.7	6.3	4.4	4.1	3.7	3.8	3.6
2	---	---	4.1	3.9	3.8	3.7	4.4	4.1	3.8	3.7	3.7	3.6
3	---	---	6.0	3.9	3.8	3.7	4.1	3.9	3.8	3.6	3.8	3.7
4	---	---	5.5	4.4	3.8	3.7	6.0	4.0	3.8	3.6	3.8	3.7
5	6.2	6.1	5.0	4.4	3.8	3.6	4.4	3.8	3.7	3.6	3.8	3.7
6	6.1	6.0	---	---	3.8	3.7	4.0	3.6	3.7	3.6	3.8	3.7
7	5.9	5.7	---	---	3.8	3.7	3.7	3.5	3.7	3.6	3.8	3.6
8	5.7	5.4	---	---	3.8	3.8	3.7	3.6	3.7	3.6	3.8	3.7
9	5.5	5.1	---	---	3.9	3.8	3.7	3.6	3.7	3.6	3.8	3.7
10	5.3	5.0	4.8	4.5	3.9	3.7	3.7	3.6	3.7	3.6	3.8	3.7
11	---	---	4.6	4.2	3.8	3.8	5.7	3.6	3.8	3.6	3.8	3.7
12	---	---	4.4	3.8	3.8	3.7	5.8	3.9	3.9	3.8	3.8	3.7
13	---	---	4.1	3.7	3.8	3.7	4.7	3.8	3.8	3.7	3.8	3.7
14	---	---	3.9	3.6	3.8	3.7	3.9	3.6	3.8	3.6	3.8	3.8
15	---	---	3.9	3.6	3.8	3.7	3.8	3.6	3.8	3.6	3.8	3.7
16	---	---	3.9	3.6	3.8	3.7	3.7	3.6	3.8	3.6	3.8	3.8
17	---	---	3.8	3.4	3.8	3.6	3.7	3.5	3.8	3.7	3.8	3.7
18	---	---	3.7	3.5	3.8	3.6	3.7	3.5	3.8	3.8	3.8	3.7
19	---	---	3.8	3.6	3.8	3.7	3.7	3.6	3.8	3.7	3.8	3.7
20	4.4	4.1	3.8	3.6	3.8	3.7	3.7	3.6	3.8	3.7	3.8	3.7
21	4.3	3.9	3.8	3.7	3.8	3.7	3.9	3.6	3.8	3.7	3.9	3.8
22	4.1	3.9	3.9	3.8	3.8	3.8	3.7	3.6	3.8	3.7	3.9	3.7
23	4.1	4.0	3.9	3.8	3.8	3.7	3.8	3.6	3.8	3.7	3.9	3.7
24	4.1	4.0	3.9	3.8	3.8	3.7	3.8	3.6	3.8	3.7	3.8	3.7
25	4.2	4.1	3.9	3.8	5.4	3.7	5.4	3.6	3.8	3.8	3.8	3.7
26	4.2	4.1	4.0	3.8	4.8	3.8	4.0	3.8	3.8	3.6	3.8	3.7
27	4.2	4.0	4.0	3.8	4.6	3.8	3.8	3.7	3.8	3.6	3.9	3.7
28	5.4	4.0	4.0	3.9	5.4	3.9	3.8	3.6	3.7	3.6	3.9	3.8
29	5.3	4.3	4.0	3.7	5.4	4.0	3.7	3.7	3.8	3.6	3.9	3.7
30	4.4	4.0	3.9	3.8	6.2	3.9	3.7	3.6	3.7	3.6	3.9	3.7
31	---	---	4.2	3.7	---	---	3.7	3.6	3.8	3.6	---	---
MONTH	6.2	3.9	6.0	3.4	6.2	3.6	6.3	3.5	4.1	3.6	3.9	3.6
YEAR	6.3	3.2										

03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	13.0	9.5	4.0	0.5	0.0	1.0	0.0	---	---	4.0	0.5
2	16.5	14.0	9.0	3.0	0.5	0.0	1.0	0.0	---	---	4.0	0.0
3	16.5	13.0	10.5	5.0	0.0	0.0	0.5	0.0	2.0	1.0	6.5	1.0
4	16.5	13.0	7.0	3.0	0.5	0.0	0.5	0.5	2.0	1.0	6.5	4.0
5	16.5	13.5	6.0	3.0	1.0	0.0	1.0	0.0	1.0	0.0	7.0	2.5
6	16.0	15.0	7.5	2.5	0.5	0.0	0.5	0.0	0.5	0.0	8.0	2.0
7	15.0	13.0	7.5	3.0	1.5	0.0	1.0	0.0	0.5	0.0	4.0	0.5
8	13.5	12.5	5.0	2.0	1.0	0.0	0.5	0.0	1.5	0.0	8.5	0.0
9	13.0	10.0	6.5	1.5	0.5	0.0	0.5	0.0	1.0	0.0	11.5	1.0
10	13.5	7.5	4.5	2.5	1.0	0.0	0.5	0.0	1.5	0.0	10.5	2.0
11	14.5	8.5	4.0	2.5	2.0	1.0	0.0	0.0	1.5	0.0	14.5	2.0
12	14.5	8.0	6.5	2.0	6.0	2.0	0.5	0.0	1.0	0.0	10.0	7.0
13	15.0	9.5	5.0	3.5	2.0	0.0	0.5	0.0	8.0	0.0	---	---
14	13.0	9.0	4.5	3.0	0.5	0.0	0.5	0.5	1.0	0.0	---	---
15	13.5	8.5	6.5	3.5	2.0	0.0	0.5	0.5	0.5	0.0	---	---
16	12.5	9.5	5.5	3.0	2.0	0.0	0.0	0.0	0.5	0.0	---	---
17	10.0	8.5	5.0	3.0	4.0	0.0	0.0	0.0	0.5	0.0	---	---
18	9.0	5.5	5.5	3.0	2.5	0.0	2.0	0.0	1.0	0.5	---	---
19	8.0	6.0	6.0	3.0	3.5	0.0	2.5	1.0	1.0	0.5	---	---
20	8.0	7.0	5.0	1.5	3.5	0.0	---	---	0.5	0.0	---	---
21	8.5	6.5	3.0	1.5	0.5	0.0	---	---	1.0	0.0	---	---
22	8.0	4.5	4.0	1.5	0.0	0.0	---	---	6.5	0.0	---	---
23	5.5	3.5	3.5	1.0	0.5	0.0	---	---	---	---	---	---
24	9.5	5.5	1.0	0.5	0.5	0.0	---	---	4.5	3.0	---	---
25	10.0	9.0	3.5	0.5	1.0	0.0	---	---	7.0	2.5	---	---
26	9.0	6.0	6.5	3.0	0.5	0.0	---	---	8.0	3.0	---	---
27	6.0	4.0	10.0	7.0	0.5	0.0	---	---	6.0	2.0	---	---
28	8.5	3.5	8.0	2.0	1.0	0.0	---	---	5.0	1.0	---	---
29	9.0	4.0	2.0	0.5	0.0	0.0	---	---	---	---	---	---
30	7.0	4.5	1.5	0.0	0.5	0.0	---	---	---	---	---	---
31	8.0	6.5	---	---	0.5	0.0	---	---	---	---	---	---
MONTH	16.5	3.5	10.5	0.0	6.0	0.0	2.5	0.0	8.0	0.0	14.5	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	5.0	20.5	6.5	25.5	18.5	25.5	19.0	27.5	20.0	28.5	21.5
2	---	---	21.0	13.0	24.0	16.5	26.5	17.0	27.5	17.5	29.5	22.5
3	---	---	20.5	12.5	24.5	14.0	26.5	16.5	28.0	18.5	28.0	22.0
4	---	---	18.0	13.5	25.0	13.0	23.0	18.0	29.0	19.5	28.5	19.5
5	8.5	5.5	21.0	13.5	21.5	16.0	28.0	19.5	29.5	21.5	29.0	22.0
6	7.0	3.5	---	---	24.0	17.0	30.0	20.5	30.0	22.5	24.5	22.5
7	11.0	2.5	---	---	19.5	12.5	30.5	22.0	30.0	23.5	27.0	20.5
8	12.5	4.5	---	---	16.5	10.5	30.5	22.5	26.0	23.5	27.0	19.5
9	14.0	7.0	---	---	20.5	14.0	27.5	23.5	27.5	23.0	28.0	20.0
10	19.0	9.0	15.5	5.5	22.0	10.0	24.0	21.5	27.0	23.0	25.0	20.0
11	---	---	18.5	6.0	17.5	13.0	28.5	20.5	27.5	23.0	22.5	15.5
12	---	---	19.0	7.0	24.0	15.0	25.5	20.5	23.0	22.0	21.5	14.0
13	---	---	23.0	10.0	25.0	16.5	28.5	20.5	24.0	22.0	24.5	18.5
14	---	---	21.5	12.0	23.5	19.0	30.5	20.0	28.0	22.0	22.5	20.0
15	---	---	23.5	11.0	26.5	18.5	30.0	20.5	28.0	22.0	25.0	18.0
16	---	---	24.5	10.5	26.5	17.5	27.5	22.5	28.5	22.0	24.5	21.5
17	---	---	24.5	13.0	28.5	19.0	30.5	22.0	25.5	21.5	26.0	21.5
18	---	---	25.5	15.5	28.0	21.0	32.0	22.0	24.0	18.0	22.5	20.5
19	19.5	14.0	27.0	16.0	27.0	20.5	31.5	23.5	24.0	16.0	24.0	21.5
20	22.5	12.5	27.0	15.5	28.5	21.0	32.0	24.0	25.0	17.0	21.5	19.0
21	22.0	14.0	27.0	16.5	26.5	17.5	28.5	24.5	23.5	16.5	19.5	16.5
22	19.5	15.5	25.5	16.5	19.5	17.5	30.5	22.5	25.5	19.0	22.0	15.5
23	18.5	15.5	26.0	18.0	25.5	14.5	28.0	19.0	26.5	18.0	22.5	16.0
24	15.5	11.5	26.0	18.0	24.0	19.0	27.0	19.0	22.5	19.5	21.5	18.5
25	11.5	8.5	23.5	19.5	26.0	20.5	26.5	22.0	24.0	16.0	23.0	18.5
26	12.5	8.0	25.5	16.5	27.5	19.5	26.0	18.5	26.0	16.5	24.5	19.0
27	19.5	5.0	25.5	16.5	25.0	18.5	26.5	17.0	28.0	20.0	21.5	16.0
28	13.5	8.5	25.0	17.5	25.0	20.5	25.5	16.5	29.5	21.5	19.0	14.0
29	18.0	5.0	26.0	19.0	27.5	19.5	22.5	20.5	28.5	21.5	20.5	12.5
30	19.5	5.0	26.5	17.5	24.5	16.5	27.0	20.5	28.5	22.5	21.5	13.5
31	---	---	25.5	19.5	---	---	28.0	20.0	29.5	21.5	---	---
MONTH	22.5	2.5	27.0	5.5	28.5	10.0	32.0	16.5	30.0	16.0	29.5	12.5
YEAR	32.0	0.0										

03201800 SANDY RUN NEAR LAKE HOPE, OH

LOCATION.--Lat 39°20'01", long 82°19'56", in T.11 N., R.16 W., Vinton County, Hydrologic Unit 05090101, on right bank at upstream side on bridge of King Hollow Trail, 1,200 ft (366 m) downstream from Harbargar Hollow, 2.6 mi (4.2 km) upstream from spillway of Lake Hope, and 5.0 mi (8.0 km) northeast of Zaleski.

DRAINAGE AREA.--4.99 mi² (12.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 715.51 ft (218.087 m) above mean sea level.

REMARKS.--Records good above 10 ft³/s, fair below.

AVERAGE DISCHARGE.--20 years, 5.75 ft³/s (0.163 m³/s), 15.65 in/yr (398 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 ft³/s (107 m³/s) Aug. 3, 1958, gage height 8.41 ft (2.563 m) from rating curve extended above 600 ft³/s (17.0 m³/s) on the basis of slope-area measurements at gage heights 7.68 ft (2.341 m), 8.02 ft (2.444 m), and 8.52 ft (2.597 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 12	2330	380	10.8	5.02	1.530	Apr. 2	2115	*547	15.5	*5.73	1.747

Minimum discharge, 0.04 ft³/s (0.001 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	4.5	.90	.77	.21	8.6	3.0	2.4	.33	15	1.4	.21
2	.69	2.8	1.0	.77	.21	8.6	87	2.3	.29	1.2	.33	.21
3	.69	2.1	.88	.76	.21	8.6	49	11	.25	.55	.21	.25
4	.66	1.7	1.0	.76	.21	46	32	12	.21	3.6	.18	.21
5	.69	1.3	.78	.75	.21	19	35	9.6	.29	2.1	.15	.18
6	.76	1.1	1.4	.75	.21	11	21	14	.49	.84	.13	.18
7	.92	1.4	16	.75	.21	7.7	16	40	.38	.49	.15	.21
8	1.2	1.0	[illegible]	.70	.21	6.1	11	17	.33	.33	.18	.18
9	7.4	1.1	3.0	.66	.21	5.0	8.3	8.9	.76	.25	.25	.15
10	2.9	2.1	2.3	.60	.21	4.2	6.9	6.1	.25	.29	.29	.13
11	1.6	1.0	5.6	.58	.97	3.0	5.5	4.2	.18	2.3	.38	.10
12	1.2	.91	5.0	.53	1.7	26	4.5	3.0	.21	5.5	1.4	.08
13	1.1	.82	4.0	.47	24	64	4.0	2.3	.18	3.6	.64	.07
14	1.1	.82	2.7	.44	16	15	3.6	1.8	.33	1.0	.62	.05
15	1.1	.91	2.0	.40	9.6	11	3.1	1.6	.29	.55	.43	.07
16	1.2	.74	1.6	.37	5.5	8.0	2.6	1.2	.15	.43	.33	1.6
17	1.1	.76	1.4	.34	4.5	6.7	2.4	1.0	.15	.33	.38	.43
18	1.1	.90	1.3	.33	3.4	34	2.4	.93	.15	.25	.24	.25
19	1.1	.84	1.2	.30	2.7	15	2.6	.76	.49	.21	.21	.25
20	1.5	.77	2.4	.29	2.5	12	2.3	.69	.25	.18	.18	.33
21	2.0	.77	1.5	.27	2.0	8.6	2.0	.55	.21	.25	.15	.21
22	1.5	.82	1.1	.25	3.5	11	2.0	.55	.25	.76	.18	.18
23	1.4	.73	1.2	.24	22	8.3	2.3	.43	.33	.21	.15	.15
24	6.6	.69	.84	.23	48	6.9	2.1	.43	.25	.18	.33	.18
25	5.3	.64	.82	.23	18	5.5	2.0	.49	.38	1.0	.25	.21
26	2.9	1.2	.80	.22	11	4.7	1.8	.49	3.0	.69	.21	.33
27	2.0	1.1	.79	.22	9.3	4.5	1.6	.43	.33	.25	.33	.33
28	1.7	1.1	.79	.21	8.6	5.5	3.3	.38	2.8	.18	.18	.25
29	1.5	.86	.78	.21	---	4.7	4.7	.38	3.3	.25	.15	.21
30	2.4	.57	.78	.21	---	4.0	3.0	.43	.76	.29	.21	.18
31	15	---	.78	.21	---	3.6	---	.33	---	.18	.33	---
TOTAL	71.07	36.05	75.64	13.82	195.37	387.4	327.0	145.67	17.57	43.24	10.65	7.37
MEAN	2.29	1.20	2.44	.45	6.98	12.5	10.9	4.70	.59	1.39	.34	.25
MAX	15	4.5	16	.77	48	64	87	40	3.3	15	1.4	1.6
MIN	.66	.57	.78	.21	.21	3.6	1.6	.33	.15	.18	.13	.05
CFSM	.46	.24	.49	.09	1.40	2.51	2.18	.94	.12	.28	.07	.05
IN.	.53	.27	.56	.10	1.46	2.89	2.44	1.09	.13	.32	.08	.05

CAL YR 1976 TOTAL 1875.85 MEAN 5.13 MAX 170 MIN .12 CFSM 1.03 IN 13.98
WTR YR 1977 TOTAL 1330.85 MEAN 3.65 MAX 87 MIN .05 CFSM .73 IN 9.92

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RACCOON CREEK BASIN

03201800 SANDY RUN NEAR LAKE HOPE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to 1961, 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1970 to current year.
pH: December 1970 to current year.
WATER TEMPERATURES: December 1970 to current year.
DISSOLVED OXYGEN: December 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1970.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,480 micromhos July 11, 12, 1973; minimum, 53 micromhos Sept. 3, 1974.
pH: Maximum, 5.6 units Apr. 28, 1973; minimum, 2.1 units Mar. 25, 1971, Aug. 31, 1972.
WATER TEMPERATURES: Maximum, 28.5°C Aug. 26, 1975; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on many days during January, November, and December 1971, January and February 1973; minimum, 2.0 mg/L Aug. 29, 30, 1973.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 837 micromhos Sept. 16; minimum, 102 micromhos July 12.
pH: Maximum, 5.5 units Mar. 12; minimum, 3.5 units July 25.
WATER TEMPERATURES: Maximum, 28.0°C July 20; minimum, 0.0°C Jan. 5-14, 16-19, Feb. 5-9.
DISSOLVED OXYGEN: Maximum, 14.4 mg/L Dec. 7; minimum, 3.6 mg/L Aug. 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 24...	1330	6.6	290	4.5	5.0	12.0	96	.4	89	89	21	8.8
JUN 15...	1330	.27	480	4.1	20.5	7.7	85	.9	180	180	42	18

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 24...	6.2	1.7	0	0	0	.0	99	7.1	.1	12	159	.08
JUN 15...	13	2.7	0	0	0	.0	200	13	.1	20	312	.08

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 24...	.00	.05	.08	0	10	3	680	3	850	.0	180	8.5
JUN 15...	.00	.06	.00	2	<10	4	420	6	2500	.0	130	5.2

03201800 SANDY RUN NEAR LAKE HOPE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	552	543	321	291	579	539	453	434	516	513	341	291
2	557	548	341	321	552	530	449	432	515	510	344	302
3	557	543	384	341	563	531	449	441	528	510	372	300
4	555	537	396	384	552	531	474	447	551	530	377	170
5	554	536	396	387	569	540	485	477	573	552	221	188
6	549	519	392	384	570	516	482	476	572	564	257	222
7	548	533	390	384	534	242	485	479	563	552	284	258
8	564	540	398	389	314	275	506	485	551	542	300	279
9	576	369	413	396	356	311	501	482	552	542	315	291
10	446	384	423	408	372	342	527	482	584	552	327	318
11	471	447	443	422	371	285	572	534	632	299	326	318
12	480	471	449	440	348	291	549	513	345	248	351	123
13	489	479	444	438	347	324	513	500	239	192	206	123
14	492	480	443	437	342	323	504	494	264	240	222	207
15	500	491	443	438	389	338	534	504	315	266	264	272
16	506	498	443	438	410	383	536	521	360	278	273	258
17	507	501	452	444	414	392	521	507	441	321	285	255
18	507	498	459	452	395	383	510	501	456	390	303	150
19	503	492	465	453	393	383	512	507	449	426	201	189
20	506	491	464	453	440	383	518	510	435	411	236	201
21	527	504	473	462	453	419	518	516	425	399	254	222
22	539	525	477	471	420	407	516	513	419	218	288	248
23	542	536	495	474	434	405	513	509	257	165	245	231
24	576	386	503	486	461	437	519	510	216	170	269	242
25	410	377	506	495	456	432	539	519	257	219	287	261
26	432	411	510	503	503	432	549	540	278	245	306	288
27	434	431	515	494	506	473	551	545	318	281	332	302
28	438	432	513	504	486	464	549	540	308	290	350	326
29	443	432	546	504	494	473	540	531	---	---	335	306
30	444	411	570	545	471	450	531	521	---	---	305	293
31	377	210	---	---	453	444	522	518	---	---	324	299
MONTH	576	210	570	291	579	242	572	432	632	165	377	123

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	315	300	381	341	420	401	---	---	---	---	474	453
2	323	107	389	378	411	396	---	---	---	---	471	450
3	186	126	384	164	419	395	---	---	480	468	468	453
4	224	137	239	180	393	387	---	---	477	465	462	447
5	177	146	266	239	396	381	---	---	471	459	450	435
6	182	176	258	179	420	398	---	---	465	450	447	435
7	221	180	194	147	411	401	---	---	459	447	465	447
8	227	219	239	185	401	386	---	---	459	444	465	441
9	245	219	246	240	470	389	---	---	465	453	447	426
10	276	249	263	246	480	470	---	---	462	423	435	399
11	279	266	279	266	474	464	---	---	471	411	411	378
12	278	269	293	278	486	473	358	102	564	429	384	357
13	305	270	326	291	473	456	312	124	564	510	[illegible]	321
14	324	308	338	323	497	444	354	316	510	495	---	---
15	312	305	333	329	498	486	384	358	516	510	---	---
16	312	302	329	[illegible]	483	474	412	378	528	510	837	447
17	324	309	336	323	479	470	414	406	528	516	681	663
18	354	324	354	336	474	444	424	406	522	495	663	654
19	[illegible]	333	360	353	515	456	426	406	501	489	654	639
20	[illegible]	345	362	354	497	470	424	412	495	474	669	654
21	356	345	368	354	470	461	426	390	483	447	666	654
22	366	353	360	348	464	447	498	420	483	465	663	648
23	390	363	360	353	489	456	484	460	471	459	663	645
24	404	384	362	356	486	470	460	450	501	453	660	630
25	402	386	368	360	---	---	706	444	501	456	669	654
26	390	371	374	363	---	---	510	438	459	411	672	630
27	374	368	380	369	---	---	484	472	483	429	681	666
28	378	318	386	372	---	---	484	472	465	429	672	660
29	290	263	398	372	---	---	484	472	441	432	678	666
30	336	288	405	393	---	---	490	486	474	432	675	660
31	---	---	416	399	---	---	---	---	483	468	---	---
MONTH	404	107	416	147	515	381	706	102	564	411	837	321
YEAR	837	102										

03201800 SANDY RUN NEAR LAKE HOPE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.6	4.6	4.8	4.6	4.7	4.5	4.6	4.4	---	---	4.5	4.1
2	4.6	4.5	4.7	4.6	4.6	4.5	4.6	4.6	---	---	4.4	4.0
3	4.7	4.5	4.6	4.3	4.6	4.5	4.6	4.5	4.0	3.9	4.4	3.9
4	4.8	4.5	4.3	4.3	4.6	4.5	4.6	4.4	3.9	3.9	5.0	3.9
5	4.8	4.6	4.4	4.3	4.6	4.5	4.4	4.2	3.9	3.8	4.9	4.7
6	4.7	4.6	4.5	4.4	4.7	4.6	4.3	4.2	3.9	3.7	4.7	4.5
7	4.7	4.6	4.5	4.4	5.1	4.5	4.3	4.2	4.0	3.8	4.5	4.3
8	4.6	4.5	4.5	4.4	5.0	4.9	4.2	4.1	4.1	3.9	4.5	4.3
9	4.7	4.1	4.8	4.5	5.0	4.7	4.3	4.2	4.0	3.9	4.3	4.1
10	4.6	4.5	4.6	4.5	4.8	4.5	4.3	4.0	4.1	4.0	4.2	4.0
11	4.6	4.5	4.6	4.4	4.7	4.3	4.0	3.8	4.5	4.0	4.3	4.0
12	4.6	4.5	4.5	4.4	4.7	4.1	4.1	4.0	4.6	4.1	5.5	4.0
13	4.6	4.5	4.6	4.4	4.5	4.1	4.3	4.1	5.1	4.8	5.3	4.9
14	4.6	4.5	4.6	4.5	4.6	4.5	4.4	4.3	4.9	4.7	4.9	4.8
15	4.7	4.5	4.6	4.5	4.5	4.1	4.3	4.2	4.8	4.5	4.8	4.3
16	4.6	4.5	4.7	4.5	4.2	4.0	4.2	4.1	4.7	4.1	4.3	4.2
17	4.6	4.6	4.7	4.6	4.2	4.0	4.3	4.2	4.5	3.8	4.5	4.3
18	4.6	4.4	4.7	4.6	4.4	4.2	4.4	4.3	3.9	3.6	5.1	4.1
19	4.4	4.3	4.7	4.5	4.4	4.3	4.5	4.4	3.8	3.6	5.1	5.0
20	4.4	4.2	4.7	4.5	4.3	3.9	---	---	3.8	3.7	5.1	4.7
21	4.3	4.2	4.7	4.6	4.1	3.8	---	---	3.9	3.8	5.1	4.7
22	4.2	4.1	4.6	4.6	4.4	4.2	---	---	4.8	3.9	4.7	4.3
23	4.2	4.0	4.8	4.6	4.4	4.2	---	---	4.9	4.6	5.1	4.7
24	4.2	3.7	4.9	4.7	4.4	4.2	---	---	4.9	4.6	5.0	4.6
25	4.1	3.9	4.7	4.6	4.5	4.3	---	---	4.5	4.3	4.7	4.4
26	3.9	3.8	4.6	4.5	4.4	3.9	---	---	4.5	4.3	4.4	4.2
27	3.9	3.8	4.6	4.5	4.0	3.9	---	---	4.3	4.0	4.3	4.2
28	4.1	3.9	4.5	4.4	4.1	3.9	---	---	4.5	4.1	4.2	4.0
29	4.2	4.0	4.5	4.4	4.1	3.9	---	---	---	---	4.4	4.1
30	4.2	4.1	4.6	4.4	4.2	4.1	---	---	---	---	4.5	4.3
31	4.8	4.1	---	---	4.4	4.2	---	---	---	---	4.4	4.2
MONTH	4.8	3.7	4.9	4.3	5.1	3.8	4.6	3.8	5.1	3.6	5.5	3.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.5	4.2	4.0	3.8	4.7	4.4	---	---	---	---	4.2	4.1
2	5.4	4.2	3.9	3.8	4.5	4.2	---	---	---	---	4.2	4.1
3	5.4	4.8	5.0	3.8	4.2	4.1	---	---	3.9	3.9	4.2	4.1
4	5.4	4.7	4.9	4.6	4.5	4.2	---	---	4.0	3.9	4.2	4.1
5	5.4	5.2	4.6	4.4	4.5	4.3	---	---	4.0	3.9	4.2	4.1
6	5.4	5.3	5.2	4.4	4.3	4.2	---	---	4.0	3.9	4.1	4.1
7	5.4	5.0	5.3	5.0	4.5	4.2	---	---	3.9	3.9	4.2	4.1
8	5.1	4.8	5.0	4.5	4.5	4.2	---	---	3.9	3.9	4.2	4.1
9	5.1	4.8	4.5	4.4	4.5	4.2	---	---	4.0	3.9	4.2	4.1
10	4.8	4.4	4.5	4.4	4.5	4.2	---	---	4.0	3.9	4.2	4.1
11	4.7	4.3	4.4	4.2	4.5	4.3	---	---	4.1	3.9	4.3	4.1
12	4.6	4.4	4.5	4.3	4.5	4.3	4.9	4.5	4.1	3.9	4.3	4.2
13	4.4	4.2	4.3	4.1	4.4	4.2	4.9	4.3	3.9	3.8	4.3	4.1
14	4.2	4.0	4.2	4.0	4.4	4.2	4.3	4.1	3.9	3.8	---	---
15	4.4	4.2	4.2	4.0	4.4	4.1	4.2	4.0	3.9	3.8	---	---
16	4.4	4.2	4.4	4.1	4.3	4.1	4.1	4.0	3.9	3.7	4.4	3.8
17	4.3	4.2	4.4	4.2	4.3	4.2	4.1	4.0	3.9	3.9	4.0	3.9
18	4.3	4.0	4.3	4.2	4.3	4.2	4.1	4.0	4.0	3.9	4.1	4.0
19	4.3	3.8	4.4	4.2	4.2	4.1	4.1	4.0	4.1	4.0	4.1	4.0
20	4.2	4.0	4.4	4.2	4.3	4.1	4.0	4.0	4.1	4.0	4.1	4.0
21	4.2	4.0	4.4	4.2	4.4	4.0	4.1	4.0	4.1	4.0	4.1	4.0
22	4.1	3.9	4.4	4.2	4.2	4.1	4.0	3.8	4.0	4.0	4.1	4.0
23	3.9	3.8	4.4	4.3	4.3	4.2	4.0	3.9	4.3	4.0	4.1	4.0
24	3.8	3.7	4.7	4.3	4.2	4.2	4.0	3.9	4.3	4.2	4.0	4.0
25	3.7	3.6	4.5	4.3	---	---	4.0	3.5	4.3	4.2	4.0	4.0
26	3.9	3.7	4.6	4.2	---	---	3.9	3.7	4.4	4.2	4.1	4.0
27	4.0	3.8	4.6	4.3	---	---	4.0	3.9	4.4	4.2	4.1	4.0
28	4.0	3.7	4.4	4.3	---	---	4.0	3.9	4.3	4.1	4.1	4.0
29	4.6	4.2	4.4	4.3	---	---	4.0	3.9	4.2	4.1	4.1	4.0
30	4.4	4.0	4.4	4.3	---	---	3.9	3.9	4.2	4.1	4.1	4.0
31	---	---	4.6	4.4	---	---	---	---	4.3	4.1	---	---
MONTH	5.4	3.6	5.3	3.8	4.7	4.0	4.9	3.5	4.4	3.7	4.4	3.8
YEAR	5.5	3.5										

03201800 SANDY RUN NEAR LAKE HOPE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	13.0	7.5	4.5	1.5	0.5	1.0	0.5	1.0	0.5	4.0	0.5
2	16.0	13.5	7.0	4.0	1.0	0.5	1.0	0.5	1.0	0.5	3.5	0.5
3	17.0	12.5	9.0	6.0	1.0	0.5	1.0	1.0	1.0	0.5	5.0	0.5
4	17.0	11.5	6.0	3.5	1.0	0.5	1.0	0.5	0.5	0.5	6.5	4.5
5	17.5	12.5	5.5	3.5	1.0	0.5	0.5	0.0	0.5	0.0	7.5	3.0
6	16.0	14.5	6.5	3.0	1.0	0.5	0.5	0.0	0.5	0.0	8.0	2.5
7	14.5	13.0	6.0	3.5	1.0	0.5	0.5	0.0	0.5	0.0	4.5	1.0
8	13.5	12.0	4.0	2.0	1.0	0.5	0.5	0.0	0.5	0.0	7.0	0.5
9	12.5	10.5	5.5	1.5	0.5	0.5	0.5	0.0	0.5	0.0	8.5	2.0
10	11.5	8.5	5.5	3.0	1.0	0.5	0.5	0.0	1.0	0.5	8.5	3.5
11	12.5	8.5	5.0	3.0	2.5	1.0	0.0	0.0	1.0	0.5	10.5	3.5
12	13.0	8.0	5.0	2.5	4.0	2.5	0.5	0.0	0.5	0.5	9.0	8.0
13	14.0	9.5	4.0	1.0	3.0	0.5	0.5	0.0	0.5	0.5	8.5	6.5
14	13.0	8.5	3.0	0.5	1.0	0.5	0.5	0.0	0.5	0.5	9.0	5.0
15	14.0	8.0	5.5	2.0	2.0	0.5	0.5	0.5	0.5	0.5	12.0	4.0
16	12.5	8.5	3.5	0.5	2.0	0.5	0.5	0.0	0.5	0.5	11.0	7.0
17	10.5	8.5	4.0	0.5	3.0	1.0	0.0	0.0	0.5	0.0	7.5	3.5
18	9.5	4.5	5.5	2.0	2.0	0.5	0.5	0.0	0.5	0.5	10.0	6.5
19	9.5	5.5	6.5	3.0	3.0	0.5	1.0	0.5	0.5	0.5	7.5	5.0
20	8.0	7.0	4.5	1.0	3.5	1.5	1.0	0.5	0.5	0.5	6.0	4.5
21	8.5	6.5	4.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	10.0	2.0
22	8.5	5.0	3.0	2.0	1.0	0.5	1.0	0.5	1.0	0.5	7.0	3.5
23	6.5	3.5	3.5	1.0	1.0	1.0	1.0	0.5	2.0	0.5	8.5	2.0
24	9.0	6.5	1.5	0.5	1.0	0.5	1.0	1.0	4.5	2.5	8.0	2.5
25	10.0	9.5	4.0	1.0	1.0	1.0	1.0	1.0	7.0	2.0	8.5	2.0
26	9.5	6.5	7.5	3.5	1.0	1.0	1.0	1.0	7.5	3.0	9.5	2.5
27	7.0	4.5	10.0	6.5	1.0	0.5	1.0	0.5	5.5	3.0	9.5	4.0
28	7.0	3.0	7.5	2.5	1.0	1.0	1.0	0.5	5.0	2.0	11.5	8.5
29	7.0	2.0	3.0	0.5	1.0	0.5	1.0	0.5	---	---	15.5	9.0
30	5.5	3.0	1.5	0.5	1.0	0.5	1.0	0.5	---	---	17.0	10.5
31	8.0	6.5	---	---	1.0	0.5	1.0	0.5	---	---	13.0	9.0
MONTH	17.5	2.0	10.0	0.5	4.0	0.5	1.0	0.0	7.5	0.0	17.0	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	5.5	16.5	9.0	23.0	18.5	---	---	---	---	27.0	21.0
2	11.5	9.5	18.5	14.0	21.5	16.5	---	---	---	---	27.0	21.5
3	11.5	8.5	16.5	13.5	20.5	14.0	---	---	23.0	18.0	25.5	21.0
4	11.0	8.5	15.5	13.0	21.0	13.0	---	---	24.5	15.0	25.5	18.5
5	10.0	6.0	18.0	13.0	19.5	15.5	---	---	26.0	20.5	26.5	21.0
6	7.0	4.5	17.0	13.5	22.0	16.5	---	---	27.0	21.5	22.5	21.0
7	10.5	3.0	16.5	13.5	16.5	12.5	---	---	26.5	22.5	24.5	19.5
8	11.5	5.0	17.0	10.0	15.0	10.5	---	---	24.0	22.0	24.0	18.5
9	11.0	3.0	14.0	9.0	17.0	14.0	---	---	24.5	22.0	26.0	19.0
10	14.5	4.5	13.5	7.0	18.0	10.5	---	---	24.5	21.5	25.5	19.0
11	16.5	8.0	15.5	7.5	16.0	12.5	---	---	24.5	22.0	21.0	14.5
12	17.0	9.5	15.5	9.0	20.5	14.5	22.0	21.0	22.5	22.0	19.0	13.0
13	17.5	10.0	18.5	11.5	21.0	15.5	24.0	20.0	22.5	21.5	18.0	17.0
14	17.0	11.0	17.5	13.5	21.0	18.0	25.0	20.0	24.5	21.5	---	---
15	18.0	10.5	19.5	13.0	23.0	18.0	25.0	20.0	25.0	21.5	---	---
16	17.5	10.0	19.5	12.5	22.5	17.0	24.5	22.0	25.5	21.5	20.5	19.0
17	16.0	11.5	20.5	14.5	24.0	18.0	26.5	21.5	24.0	21.0	23.0	19.5
18	18.0	11.5	22.0	16.0	24.0	20.0	27.0	22.0	21.0	18.0	23.5	18.5
19	17.0	13.0	23.5	17.0	24.0	19.5	27.5	22.5	20.0	15.5	23.5	15.0
20	19.0	13.5	23.5	16.5	25.5	20.0	28.0	23.5	20.5	15.5	20.5	18.5
21	19.5	15.0	23.5	17.5	23.5	16.5	26.5	23.5	21.0	15.5	18.5	15.5
22	18.0	16.0	23.0	17.0	18.5	16.5	26.0	22.5	22.0	18.0	20.0	14.5
23	17.0	15.5	23.5	18.0	22.0	14.5	24.0	18.5	22.5	17.0	20.5	15.0
24	16.0	12.0	23.5	18.0	21.5	18.0	23.5	18.5	21.0	19.0	20.0	17.5
25	12.0	9.5	22.0	19.0	---	---	24.0	22.0	21.0	15.0	21.5	15.0
26	12.0	9.0	23.5	16.5	---	---	22.5	19.5	22.5	15.0	23.0	18.0
27	15.5	7.5	23.5	16.0	---	---	21.5	16.5	24.5	19.0	19.0	15.5
28	13.5	10.0	23.5	17.0	---	---	21.5	16.0	26.5	20.5	18.0	13.5
29	14.5	7.0	23.5	18.0	---	---	20.5	19.5	26.0	20.5	18.5	11.5
30	15.5	7.5	23.5	17.5	---	---	20.0	20.0	25.0	21.5	19.5	12.5
31	---	---	23.5	18.5	---	---	---	---	26.5	21.0	---	---
MONTH	19.5	3.0	23.5	7.0	25.5	10.5	28.0	16.0	27.0	15.0	27.0	11.5
YEAR	28.0	0.0										

03201800 SANDY RUN NEAR LAKE HOPE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.6	8.0	10.5	9.5	13.3	12.3	11.8	11.0	11.2	10.7	12.6	10.9
2	8.3	7.8	11.8	9.5	13.6	13.1	11.3	10.5	11.2	10.9	12.9	10.9
3	8.3	7.5	9.7	8.9	13.5	12.5	11.4	11.2	10.9	10.4	12.6	9.9
4	8.4	7.0	11.0	9.6	13.3	12.6	11.4	10.6	10.5	10.4	10.2	9.3
5	7.5	6.6	11.2	10.4	13.4	12.5	11.1	10.5	11.0	10.4	10.9	9.1
6	6.9	6.6	11.6	9.9	13.7	12.7	11.1	10.9	11.4	11.0	11.5	9.2
7	7.5	5.9	11.3	10.2	14.4	13.8	11.3	10.8	11.4	11.2	12.5	10.7
8	7.9	7.3	12.3	11.1	14.0	13.6	11.2	11.0	11.3	10.9	13.2	11.1
9	9.4	7.7	12.6	10.4	13.5	13.3	11.1	10.7	11.3	9.9	13.3	9.1
10	9.9	9.0	12.1	11.1	13.4	12.9	10.8	10.4	10.5	10.1	11.7	9.1
11	9.8	8.7	12.3	11.4	13.0	12.3	11.1	10.8	11.5	10.2	11.4	8.5
12	10.0	8.3	12.7	11.6	12.3	11.3	11.2	10.9	12.1	11.7	9.1	8.7
13	9.2	7.8	13.3	12.0	13.3	11.7	11.1	10.6	11.8	11.4	9.8	9.0
14	9.2	8.0	13.5	12.1	13.3	12.6	10.6	10.4	12.0	11.6	10.5	9.0
15	9.3	7.3	12.5	11.2	13.0	12.3	10.9	10.6	12.7	12.0	11.0	8.1
16	8.8	7.3	13.3	12.1	12.9	12.4	11.1	10.9	12.9	12.3	9.5	8.5
17	8.9	6.4	13.4	11.6	12.7	11.8	11.1	10.9	12.8	11.6	11.2	9.4
18	10.6	8.7	12.8	11.4	13.1	12.6	11.3	10.7	12.5	11.9	9.9	8.7
19	9.7	8.5	12.2	10.8	13.1	11.9	11.0	10.7	12.2	11.8	10.8	9.6
20	8.9	8.6	13.1	11.7	12.5	11.3	10.9	10.7	12.5	12.1	10.7	10.1
21	9.6	8.9	13.2	12.1	13.1	12.6	11.1	10.9	12.5	12.2	12.3	9.0
22	10.1	9.1	13.0	12.5	13.1	12.4	11.7	11.0	13.0	11.7	11.9	9.7
23	11.1	9.5	13.3	12.4	12.7	12.3	11.7	10.9	13.0	12.0	13.1	9.7
24	10.0	9.1	13.1	12.6	12.7	11.9	10.8	10.4	11.8	10.3	12.7	9.8
25	9.1	8.7	12.9	11.2	12.3	11.8	10.7	10.4	11.5	9.3	13.1	9.8
26	9.7	8.8	11.3	9.7	12.4	12.0	10.7	10.5	11.2	9.3	12.7	9.6
27	10.8	9.8	9.9	9.2	12.4	12.0	10.7	10.5	11.3	9.8	11.5	9.3
28	11.8	10.0	12.2	9.7	12.3	12.0	10.7	10.3	12.0	10.4	9.5	8.7
29	12.1	9.8	13.6	12.5	12.4	12.2	10.8	10.5	---	---	9.3	7.9
30	11.3	9.9	13.5	12.6	12.3	11.8	11.1	10.7	---	---	9.6	8.3
31	9.9	9.3	---	---	12.2	11.9	11.0	10.7	---	---	10.5	9.0
MONTH	12.1	5.9	13.6	8.9	14.4	11.3	11.8	10.3	13.0	9.3	13.3	7.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.9	9.5	10.3	8.5	7.6	6.8	---	---	---	---	5.8	4.7
2	10.2	6.1	9.0	8.3	7.8	6.9	---	---	---	---	5.5	4.5
3	10.3	8.9	9.3	8.4	7.9	7.2	---	---	8.4	7.0	5.5	4.5
4	9.5	8.3	9.3	7.9	8.1	6.9	---	---	7.8	6.6	5.3	4.3
5	11.1	9.5	9.2	7.7	7.4	6.6	---	---	7.3	6.1	5.6	3.9
6	12.5	11.1	9.7	8.9	7.2	6.6	---	---	8.6	7.8	5.2	4.1
7	13.3	9.6	10.0	9.2	8.1	7.0	---	---	7.9	7.3	6.7	4.1
8	11.4	9.2	10.9	8.7	8.0	7.2	---	---	7.4	6.9	6.5	4.5
9	12.8	9.4	10.9	9.2	7.9	6.9	---	---	7.3	6.7	5.0	4.2
10	11.6	8.4	11.2	9.1	8.2	6.8	---	---	7.0	6.5	4.5	3.7
11	10.1	8.1	10.7	8.5	7.3	6.6	---	---	7.1	6.6	5.2	4.3
12	9.7	8.0	10.1	8.5	6.9	5.9	7.2	7.0	7.1	6.5	6.2	4.7
13	9.4	7.8	9.1	7.8	6.4	5.5	7.8	6.8	7.0	6.7	5.3	4.6
14	9.1	7.9	8.6	7.9	6.1	5.2	7.3	6.6	6.8	6.2	---	---
15	9.3	7.9	8.7	7.9	7.7	5.6	7.0	6.4	6.6	6.1	---	---
16	9.3	7.8	9.0	8.0	8.1	7.1	6.7	6.3	6.9	6.2	6.6	4.8
17	8.9	8.0	8.7	7.8	7.6	6.5	6.6	5.8	6.8	6.1	6.8	6.2
18	8.7	8.0	8.2	7.7	7.1	6.0	6.1	5.3	7.3	6.7	6.8	5.8
19	9.1	8.5	8.1	7.5	7.6	5.7	6.9	5.3	7.4	6.6	6.3	5.3
20	8.8	8.1	8.1	7.5	6.9	6.0	5.7	4.5	6.9	6.3	6.6	5.4
21	8.8	8.0	8.0	7.4	7.0	6.0	5.7	4.5	6.5	5.4	7.7	5.9
22	8.4	8.2	8.0	7.5	7.8	6.7	6.2	5.7	6.6	5.4	7.7	6.8
23	8.4	8.3	7.9	7.4	8.2	6.6	6.6	5.8	7.4	6.1	7.5	6.3
24	9.1	8.3	7.9	7.4	6.8	6.1	6.3	5.4	7.0	5.9	6.6	5.7
25	9.7	9.1	7.6	7.4	---	---	6.7	5.3	7.4	6.4	6.9	5.8
26	10.0	9.5	7.9	7.2	---	---	7.0	6.6	6.8	5.9	6.5	5.6
27	10.9	8.7	8.0	7.1	---	---	7.3	6.6	6.5	5.3	6.3	5.4
28	10.1	8.9	7.8	7.0	---	---	8.8	6.8	5.7	4.6	8.3	5.4
29	11.5	9.0	7.7	7.0	---	---	7.4	7.0	5.0	3.9	7.8	6.5
30	11.1	8.8	7.8	7.0	---	---	7.3	7.3	5.6	3.6	7.0	5.6
31	---	---	7.6	6.8	---	---	---	---	6.9	4.5	---	---
MONTH	13.3	6.1	11.2	6.8	8.2	5.2	8.8	4.5	8.6	3.6	8.3	3.7
YEAR	14.4	3.6										

03202000 RACCOON CREEK AT ADAMSVILLE, OH

LOCATION.--Lat 38°52'25", long 82°21'22", in SE 1/4 sec. 26, T.6N., R.16W., Gallia County, Hydrologic Unit 05090101, on left bank at downstream side of U.S. Highway 35 bridge at Adamsville, 1.3 mi (2.1 km) upstream from Ryan Run, and 1.4 mi (2.3 km) downstream from Indian Creek.

DRAINAGE AREA.--585 mi² (1,515 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1915 to December 1935, October 1938 to current year. Monthly discharge only for December 1935, published in WSP 1305.

REVISED RECORDS.--WSP 873: 1916-18, 1920, 1922, 1924, 1926-27, 1931, 1933, 1935(M). WSP 1908: Drainage area. WSP 2108: 1968-70(M).

GAGE.--Water-stage recorder. Datum of gage is 570.04 ft (173.748 m) above mean sea level. Prior to June 13, 1940, nonrecording gage, June 13, 1940 to Oct. 27, 1970 water-stage recorder 480 ft (146 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--59 years, 645 ft³/s (18.27 m³/s), 14.97 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s (566 m³/s) May 28, 1968, gage height 28.69 ft (8.745 m), from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of slope-conveyance estimate of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) Oct. 17-19, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 25.2 ft (7.68 m), from floodmark, discharge, 16,000 ft³/s (453 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 ft³/s (88.6 m³/s) Apr. 8 (base 3,000 ft³/s, 85.0 m³/s), gage height, 13.97 ft (4.258 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	1480	114	131	90	1190	433	379	107	696	47	65
2	262	1250	100	119	90	880	425	361	88	402	46	51
3	189	912	95	115	90	667	892	361	75	387	50	43
4	151	649	90	110	90	1770	1790	388	66	300	62	34
5	128	505	84	105	90	2280	2830	408	60	167	79	52
6	114	406	95	105	90	2310	2920	442	57	151	63	219
7	103	341	1170	100	90	2050	3070	985	52	298	50	105
8	105	283	1390	99	90	1490	3080	1780	50	203	41	59
9	1280	247	996	298	90	972	2460	1530	79	131	36	36
10	1380	230	854	96	100	758	1350	1190	72	105	32	25
11	1010	208	682	95	180	645	1010	781	72	100	33	19
12	652	189	580	94	879	603	827	564	59	97	42	16
13	423	173	490	93	1690	1950	707	448	54	116	61	13
14	287	161	420	92	1890	2400	621	381	52	361	103	11
15	221	155	390	91	1920	2560	552	318	48	349	105	11
16	184	147	350	90	1700	2260	496	270	45	194	105	16
17	160	137	310	90	1340	1460	442	231	42	128	96	48
18	139	134	270	90	1010	1240	400	203	40	105	77	73
19	126	134	245	90	803	1510	372	184	42	101	70	77
20	126	129	247	90	779	1560	349	169	45	89	67	95
21	167	125	260	90	691	1400	323	152	43	91	54	82
22	160	124	208	90	753	1200	300	141	39	107	44	59
23	145	119	245	90	1200	980	285	129	38	91	37	46
24	233	114	230	90	1920	940	296	128	54	80	140	37
25	566	112	212	90	2330	825	287	119	96	70	141	28
26	707	112	176	90	2260	694	279	124	79	89	85	24
27	598	114	170	90	2140	609	266	115	61	62	54	21
28	466	114	166	90	1870	566	262	111	81	57	42	19
29	354	125	170	90	---	559	418	103	473	52	63	20
30	325	124	164	90	---	534	433	95	446	54	65	22
31	1790	---	148	90	---	488	---	96	---	50	79	---
TOTAL	12941	9053	11121	3183	26265	39350	28175	12686	2615	5283	2069	1426
MEAN	417	302	359	103	938	1270	939	409	87.2	170	66.7	47.5
MAX	1790	1480	1390	298	2330	2560	3080	1780	473	696	141	219
MIN	103	112	84	90	90	488	262	95	38	50	32	11
CFSM	.71	.52	.61	.18	1.60	2.17	1.61	.70	.15	.29	.11	.08
IN.	.82	.58	.71	.20	1.67	2.50	1.79	.81	.17	.34	.13	.09

CAL YR 1976 TOTAL 213983 MEAN 585 MAX 3730 MIN 36 CFSM 1.00 IN 13.61
WTR YR 1977 TOTAL 154175 MEAN 422 MAX 3080 MIN 11 CFSM .72 IN 9.80

03202000 RACCOON CREEK AT ADAMSVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-54, 1964 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1967 to current year.
pH: May 1967 to current year.
WATER TEMPERATURES: October 1951 to September 1954, October 1964 to current year.
DISSOLVED OXYGEN: May 1967 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,930 micromhos Nov. 20, 1964; minimum, 95 micromhos Aug. 1, 1976.
pH: Maximum, 8.8 units Feb. 16, 1972; minimum, [illegible] units May 6, 1972.
WATER TEMPERATURES: Maximum, 29.0°C June 16, 1952; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on several days during 1968-69, 1971; minimum recorded, 2.5 mg/L May 6, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 642 micromhos Aug. 24; minimum, 128 micromhos Sept. 6.
pH: Maximum recorded, 7.1 units Oct. 28; minimum recorded, 4.0 units Oct. 7.
WATER TEMPERATURES: Maximum, 28.5°C July 19, 20; minimum, 0.0 °C on many days during December, January and February.
DISSOLVED OXYGEN: Maximum, 12.8 mg/L Dec. 2; minimum, 5.2 mg/L Sept. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAR												
24...	1230	928	276	6.1	6.0	11.5	92	.6	100	98	25	9.5
JUL												
05...	1130	164	650	5.7	22.5	7.6	86	.1	180	180	44	17

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
24...	9.6	2.0	4	0	3	5.1	96	12	.1	10	168	.36
JUL												
05...	40	3.5	4	0	3	13	170	73	.2	11	364	.58

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
24...	.00	.12	.01	1	<10	4	430	3	1200	.4	180	9.2
JUL												
05...	.00	.22	.00	2	10	2	90	8	3600	.0	70	5.7

03202000 RACCOON CREEK AT ADAMSVILLE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	405	336	345	275	438	426	416	408	489	480	272	254
2	371	347	344	302	438	429	428	416	494	483	287	273
3	392	375	351	315	455	432	438	428	485	479	296	276
4	393	378	350	329	443	437	440	432	480	477	285	207
5	431	396	362	344	456	437	432	420	486	477	---	---
6	452	432	348	329	458	420	419	408	488	480	---	---
7	456	444	347	336	386	210	417	408	497	482	---	---
8	441	428	356	348	329	258	426	413	513	500	---	---
9	428	159	356	344	326	284	422	417	516	513	---	---
10	312	203	348	339	366	330	422	416	513	471	---	---
11	321	296	347	344	378	335	437	423	468	281	290	282
12	342	302	356	347	356	329	449	438	350	257	294	266
13	368	344	365	357	359	342	456	447	300	248	248	195
14	369	339	371	362	357	342	450	444	302	281	252	221
15	377	341	377	369	359	356	444	435	318	305	234	216
16	396	378	383	375	356	348	443	429	315	297	243	224
17	398	390	386	381	354	350	446	438	327	314	249	242
18	401	392	392	384	363	353	---	---	326	312	251	221
19	402	399	399	390	366	351	---	---	323	314	272	230
20	402	374	401	395	365	357	---	---	318	311	278	251
21	375	365	411	401	360	353	---	---	327	318	273	246
22	384	369	419	413	368	354	---	---	330	267	263	245
23	396	387	420	411	377	363	---	---	258	251	275	264
24	392	358	422	416	384	372	---	---	272	251	282	278
25	354	318	431	417	383	372	---	---	267	243	290	284
26	356	312	431	426	384	378	470	468	251	228	291	282
27	366	356	429	423	389	381	468	459	242	228	290	287
28	407	368	432	423	387	377	467	459	255	242	290	287
29	426	408	423	408	389	383	474	465	---	---	294	285
30	407	311	426	411	395	384	479	474	---	---	300	296
31	273	186	---	---	407	390	482	477	---	---	306	299
MONTH	456	159	432	275	458	210	482	408	516	228	306	195

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	314	308	392	338	425	414	350	257	497	482	543	521
2	315	270	336	326	429	417	431	360	501	488	549	540
3	300	252	351	336	447	429	548	411	519	504	566	548
4	321	213	372	350	482	449	524	452	531	506	596	566
5	213	192	366	348	480	464	627	533	503	480	632	324
6	219	215	362	309	470	456	570	498	489	482	380	128
7	221	216	317	237	471	461	563	447	518	486	515	311
8	228	219	261	237	476	462	534	512	540	513	480	414
9	233	224	308	254	458	356	545	480	564	534	410	362
10	249	234	318	278	431	393	476	461	587	563	414	360
11	255	245	284	272	465	413	476	443	594	575	459	485
12	263	257	284	276	509	465	437	410	599	528	491	449
13	272	264	291	284	500	471	465	416	525	474	507	476
14	279	272	302	293	504	459	483	443	488	437	512	476
15	288	281	312	303	515	476	479	368	512	492	528	504
16	294	288	323	312	543	495	399	375	563	498	584	524
17	302	294	332	324	528	462	482	393	549	518	591	455
18	306	300	338	333	513	491	449	404	561	533	516	462
19	314	306	345	339	525	491	453	435	600	566	540	494
20	327	312	351	344	525	491	503	440	602	561	572	491
21	335	317	362	353	525	500	537	470	558	540	602	566
22	330	326	372	360	537	516	494	369	617	554	633	594
23	333	330	387	372	524	503	501	480	630	617	633	611
24	338	333	390	366	534	455	495	474	642	614	612	603
25	345	338	399	392	498	294	482	473	453	308	605	590
26	351	345	422	396	465	339	465	417	375	335	597	567
27	353	345	416	401	474	438	470	440	456	366	588	563
28	351	326	417	413	440	399	527	474	501	461	609	578
29	335	318	434	416	488	294	512	462	525	480	623	600
30	375	332	428	417	510	282	518	473	569	488	638	609
31	---	---	422	416	---	---	516	488	546	518	---	---
MONTH	375	192	434	237	543	282	627	257	642	308	638	128
YEAR	642	128										

03202000 RACCOON CREEK AT ADAMSVILLE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	6.6	5.9			---	---	5.5	5.1	6.5	6.4
2	---	---	6.8	6.5			---	---	5.7	5.4	6.5	6.4
3	---	---	6.8	6.6			---	---	5.5	5.0	6.6	6.3
4	---	---	---	---			---	---	5.1	4.9	6.9	6.4
5	6.1	5.9	---	---			---	---	5.6	5.2	---	---
6	6.1	5.3	---	---			---	---	5.6	5.3	---	---
7	5.4	4.0	---	---			---	---	5.5	5.2	---	---
8	5.5	4.2	---	---			---	---	5.5	4.9	---	---
9	6.0	5.1	---	---			---	---	5.6	5.3	---	---
10	6.2	5.4	---	---			---	---	6.0	5.6	---	---
11	6.6	6.0	---	---			---	---	6.5	5.9	6.3	6.2
12	6.8	6.5	---	---			---	---	6.5	6.2	6.7	6.3
13	6.8	6.0	---	---			---	---	6.6	6.2	6.9	6.2
14	6.9	6.5	---	---			---	---	6.3	6.1	6.3	5.9
15	6.8	6.2	---	---			---	---	6.2	6.0	6.3	6.1
16	6.7	6.4	---	---			---	---	6.2	6.0	6.3	6.2
17	6.6	6.4	---	---			---	---	6.1	6.0	6.3	6.2
18	6.6	6.3	---	---			---	---	6.1	6.0	6.6	6.3
19	6.6	6.4	---	---			---	---	6.3	6.0	6.4	5.8
20	6.9	5.5	---	---			---	---	6.4	6.2	6.4	6.2
21	7.0	6.9	---	---			---	---	6.3	6.2	6.2	6.0
22	7.0	6.8	---	---			---	---	6.6	6.0	6.3	6.2
23	6.9	6.5	---	---			---	---	6.4	6.3	6.2	6.0
24	---	---	---	---			---	---	6.4	6.2	6.2	6.0
25	---	---	---	---			---	---	6.3	6.0	6.2	6.0
26	---	---	---	---			5.6	5.6	6.4	6.2	6.2	6.0
27	7.0	6.8	---	---			5.6	5.4	6.4	6.3	6.2	6.0
28	7.1	6.8	---	---			5.7	5.5	6.5	6.3	6.1	6.0
29	7.0	6.6	---	---			5.7	5.5	---	---	6.1	5.9
30	6.9	6.4	---	---			5.6	5.4	---	---	6.0	5.7
31	6.2	6.0	---	---			5.6	5.4	---	---	5.9	5.8
MONTH	7.1	4.0	6.8	5.9			5.7	5.4	6.6	4.9	6.9	5.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	5.8	5.7	5.1	6.5	6.0	6.5	5.7	5.7	5.6	5.7	5.5
2	6.3	5.8	5.7	5.4	6.5	6.0	6.4	5.2	5.7	5.6	5.7	5.4
3	6.3	5.9	5.7	5.4	6.5	5.9	5.3	4.8	5.8	5.5	5.5	5.1
4	6.1	5.6	5.5	5.3	6.4	5.9	5.9	4.8	5.6	5.1	5.2	5.0
5	6.0	5.8	5.6	5.4	6.4	6.0	5.9	5.6	5.2	5.0	6.1	5.0
6	5.9	5.8	5.8	5.4	6.3	6.0	5.8	5.2	5.3	5.2	6.3	5.9
7	6.0	5.8	6.0	5.7	6.2	5.9	---	---	5.7	5.3	6.1	5.5
8	6.0	5.8	5.6	5.4	6.4	5.8	---	---	5.7	5.5	5.6	5.4
9	6.0	5.9	6.0	5.5	6.9	6.0	---	---	5.8	5.6	5.9	5.7
10	6.0	5.7	6.0	5.8	6.7	6.3	---	---	5.8	5.5	6.1	5.9
11	5.9	5.6	6.0	5.7	6.6	6.3	---	---	5.5	5.2	6.2	6.1
12	5.8	5.6	6.0	5.7	6.6	6.3	---	---	5.8	5.1	6.2	5.9
13	5.8	5.6	5.9	5.5	6.4	6.2	---	---	6.2	5.8	6.0	5.8
14	5.8	5.6	5.9	5.6	6.3	6.0	---	---	6.2	5.1	6.0	5.9
15	5.7	5.5	5.8	5.5	6.4	6.1	5.6	5.2	5.3	4.8	6.1	5.9
16	5.8	5.5	5.9	5.5	6.1	5.7	5.7	5.4	5.4	4.6	6.4	6.1
17	5.8	5.3	5.8	5.5	6.2	5.7	6.0	5.7	5.4	4.8	6.3	6.0
18	5.8	5.6	5.8	5.5	6.3	6.0	6.0	5.8	5.4	5.1	6.0	5.2
19	5.8	5.6	5.7	5.4	6.5	6.0	5.9	5.7	5.1	4.9	5.3	4.9
20	5.8	5.5	5.7	5.4	6.4	6.2	5.9	5.5	5.1	4.8	5.7	4.9
21	5.7	5.5	5.7	5.2	6.3	6.0	6.3	5.4	5.0	4.8	5.7	5.6
22	5.7	5.5	5.7	5.4	6.1	6.0	6.7	6.3	5.2	5.0	5.8	5.5
23	5.7	5.6	5.6	5.4	6.5	6.0	6.3	5.9	5.3	5.1	5.5	5.0
24	5.8	5.6	5.8	5.5	6.7	6.2	5.9	5.4	5.6	5.3	5.1	5.0
25	5.8	5.5	5.6	5.5	6.9	6.4	5.8	4.5	6.2	5.8	5.1	5.0
26	5.7	5.5	5.6	5.4	6.8	6.5	6.4	4.5	6.0	5.5	5.3	5.1
27	5.8	5.3	5.7	5.4	6.6	6.4	6.2	5.8	5.8	5.4	5.4	5.3
28	5.8	5.4	5.5	5.4	6.7	6.5	5.7	4.9	5.3	4.6	5.3	5.1
29	5.9	5.3	---	---	6.7	5.0	6.0	5.2	5.2	4.9	5.2	5.1
30	5.7	5.1	---	---	6.1	4.7	5.8	5.2	6.0	4.9	5.4	5.1
31	---	---	6.3	6.1	---	---	5.7	5.4	5.8	5.4	---	---
MONTH	6.3	5.1	6.3	5.1	6.9	4.7	6.7	4.5	6.2	4.6	6.4	4.9
YEAR	7.1	4.0										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03202000 RACCOON CREEK AT ADAMSVILLE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	15.0	7.0	6.0	2.0	1.5	1.0	0.5	0.5	0.0	4.5	4.0
2	15.0	15.0	6.5	5.5	2.0	1.0	1.0	0.5	1.0	0.5	4.0	3.5
3	15.5	15.0	6.5	5.5	1.0	0.5	1.0	0.5	0.5	0.0	4.0	3.0
4	15.5	14.5	6.5	5.5	0.5	0.0	0.5	0.5	0.0	0.0	6.0	4.0
5	15.5	14.5	5.5	5.0	0.5	0.0	0.5	0.5	0.5	0.0	---	---
6	15.5	15.0	5.0	4.5	0.5	0.0	0.5	0.5	0.5	0.5	---	---
7	15.5	14.5	4.5	4.5	1.0	0.0	1.0	0.5	1.0	0.0	---	---
8	14.5	13.5	4.5	4.0	1.0	0.5	1.0	0.5	1.0	0.0	---	---
9	13.5	12.0	4.0	3.0	0.5	0.0	1.0	0.5	1.0	0.5	---	---
10	12.0	11.0	4.5	4.0	0.5	0.0	1.0	0.5	1.0	0.5	---	---
11	11.0	11.0	4.0	3.5	1.0	0.5	1.0	1.0	1.0	0.5	8.0	7.0
12	11.0	10.5	4.0	3.5	2.0	1.5	1.0	0.0	0.5	0.5	9.5	8.0
13	11.5	10.5	3.5	3.0	1.5	1.5	1.5	0.5	0.5	0.5	9.5	9.0
14	11.5	11.0	2.5	2.0	1.0	0.0	0.5	0.5	1.0	0.5	9.5	9.0
15	11.5	10.5	3.0	2.0	1.5	0.5	1.0	0.5	0.5	0.0	9.5	9.0
16	11.5	11.5	2.5	2.0	1.5	1.0	1.5	1.0	1.0	0.0	10.5	9.5
17	11.5	10.5	3.0	1.5	2.0	1.5	---	---	1.0	0.0	10.5	9.5
18	10.5	9.0	3.5	2.5	1.5	1.0	---	---	1.0	0.5	10.0	9.5
19	9.5	8.5	4.0	3.0	2.0	1.0	---	---	0.5	0.5	10.0	9.5
20	9.0	8.5	4.0	3.5	2.5	2.0	---	---	1.0	0.5	9.5	8.5
[illegible]	8.5	8.0	3.5	3.0	2.5	0.5	---	---	1.0	0.5	8.5	7.5
22	8.0	7.0	3.5	3.0	0.5	0.0	---	---	0.5	0.0	8.0	7.5
23	7.5	6.5	3.0	2.0	0.5	0.0	---	---	0.5	0.5	7.0	6.5
24	7.5	6.5	2.5	1.5	0.5	0.0	---	---	1.0	0.5	7.0	6.5
25	9.0	7.5	3.0	1.5	0.0	0.0	---	---	2.0	0.5	7.5	6.5
26	9.0	8.5	4.5	2.5	0.5	0.0	1.0	0.5	3.0	2.0	8.0	6.5
27	8.0	7.0	6.5	4.5	0.5	0.0	0.5	0.5	4.5	3.0	8.5	7.5
28	7.0	5.5	6.5	5.5	1.5	0.0	1.0	0.5	4.5	4.5	10.0	8.5
29	5.5	4.5	5.5	2.5	1.5	1.0	1.0	0.5	---	---	12.0	10.0
30	5.5	4.5	3.5	2.0	1.0	0.5	0.5	0.5	---	---	14.5	12.0
31	7.5	5.5	---	---	1.0	1.0	0.5	0.5	---	---	14.5	14.0
MONTH	15.5	4.5	7.0	1.5	2.5	0.0	1.5	0.0	4.5	0.0	14.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	13.0	14.5	13.5	23.0	22.0	22.5	21.0	24.5	23.5	26.0	24.0
2	14.5	13.5	15.0	13.5	22.5	21.0	22.5	21.5	24.5	22.5	26.0	25.0
3	14.0	13.5	16.0	15.0	21.5	20.0	23.0	22.0	24.0	22.0	26.0	24.5
4	14.0	12.5	16.5	16.0	21.0	19.0	23.0	22.0	24.0	22.5	25.5	24.0
5	12.5	12.0	17.0	16.5	21.0	19.5	24.0	23.0	25.0	23.5	25.5	23.5
6	12.0	10.0	18.5	17.0	21.0	20.0	25.5	24.0	25.5	24.5	23.0	22.0
7	9.5	8.5	18.5	16.5	20.5	18.5	26.0	25.0	25.5	24.5	23.0	22.5
8	9.5	8.5	17.0	16.0	18.5	16.5	26.5	25.5	25.5	24.5	23.0	22.5
9	9.5	9.0	16.0	15.5	16.5	15.5	26.5	26.0	25.0	24.0	23.5	22.0
10	10.5	9.0	15.5	14.0	17.5	15.0	26.5	25.5	24.5	23.5	23.5	22.5
11	12.5	10.5	14.0	13.0	17.0	16.5	26.5	25.0	24.0	23.5	22.5	20.5
12	14.5	12.5	14.0	13.0	18.5	16.5	26.5	25.0	24.0	23.5	20.5	19.5
13	15.5	14.0	15.0	13.5	19.5	17.5	27.0	26.0	23.5	22.5	21.0	20.0
14	16.5	15.0	16.0	15.0	18.0	19.0	27.0	26.0	23.0	22.5	21.5	21.0
15	16.5	16.0	17.0	15.5	21.5	19.5	26.0	25.0	24.5	22.5	21.0	20.5
16	17.0	16.0	17.5	16.5	22.0	20.0	26.0	25.5	24.5	23.5	21.5	21.0
17	17.0	16.5	18.0	17.5	23.0	21.0	27.0	26.0	24.5	24.0	22.0	21.0
18	17.5	16.5	19.0	18.0	23.5	22.0	27.5	25.5	24.0	22.5	22.0	21.0
19	17.5	17.0	20.5	19.0	24.0	22.5	28.5	26.5	22.5	21.0	22.5	21.5
20	18.5	17.5	21.0	20.0	24.5	23.0	28.5	27.0	21.0	20.0	22.5	21.5
21	19.5	18.0	22.0	20.0	24.5	22.5	28.0	27.0	21.0	20.0	21.5	20.0
22	19.5	19.0	22.0	20.5	23.5	21.0	27.5	26.0	22.0	20.5	20.0	19.0
23	19.0	19.0	22.5	21.0	21.5	19.5	27.0	25.0	22.0	20.5	20.0	19.0
24	19.0	17.5	22.5	21.0	22.0	21.0	26.0	24.5	22.5	20.0	20.0	19.5
25	17.0	15.5	22.0	21.5	22.0	21.0	25.5	25.0	20.0	19.5	20.5	20.0
26	15.0	14.0	22.5	21.0	23.5	21.5	25.0	23.5	20.5	19.0	21.0	20.0
27	14.5	13.5	22.5	21.0	23.5	22.5	24.5	22.5	22.0	20.0	20.5	19.5
28	14.5	14.0	22.5	21.0	23.5	22.5	23.5	21.0	23.5	21.5	19.5	18.5
29	14.0	13.0	22.5	21.5	23.5	22.5	23.0	22.0	24.0	22.5	19.0	18.0
30	14.0	13.0	23.0	21.5	23.5	22.0	24.0	22.0	24.0	23.5	18.5	17.5
31	---	---	23.0	22.0	---	---	24.5	22.5	24.5	23.0	---	---
MONTH	19.5	8.5	23.0	13.0	24.5	15.0	28.5	21.0	25.5	19.0	26.0	17.5
YEAR	28.5	0.0										

03202000 RACCOON CREEK AT ADAMSVILLE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	10.7	10.3	---	---	11.8	11.6	10.0	9.8	11.1	10.6
2	---	---	10.8	10.6	12.8	12.3	11.6	11.3	9.9	9.6	11.5	11.0
3	---	---	11.0	10.8	12.6	12.1	11.2	11.0	9.6	9.5	11.3	10.8
4	---	---	11.1	10.8	12.2	11.9	11.0	10.8	9.5	9.3	10.8	8.0
5	9.1	8.8	11.4	11.1	12.0	11.4	11.0	10.8	9.5	9.3	---	---
6	8.7	8.4	11.5	11.2	11.9	11.2	11.0	10.8	9.6	9.4	---	---
7	8.6	8.2	11.4	10.1	11.7	10.9	10.9	10.8	9.6	9.5	---	---
8	8.8	8.6	10.9	10.1	12.0	10.7	11.0	10.5	9.5	9.4	---	---
9	9.4	8.6	11.1	8.4	---	---	10.9	10.5	9.5	9.3	---	---
10	9.8	9.2	10.5	9.8	---	---	10.6	10.3	9.5	9.0	---	---
11	9.9	9.5	10.9	10.3	---	---	10.6	10.4	11.9	9.2	11.9	11.5
12	10.1	9.9	10.6	9.9	---	---	10.5	10.2	12.2	11.4	11.4	10.6
13	9.9	9.6	10.5	10.0	---	---	10.4	10.0	12.2	12.0	10.8	10.2
14	9.8	9.0	10.4	9.8	---	---	10.1	9.7	12.3	12.1	10.8	10.1
15	9.8	8.9	10.3	9.0	12.7	12.4	9.8	9.6	12.3	12.2	10.1	10.0
16	9.7	9.5	11.4	10.1	12.6	12.4	9.8	9.5	12.3	11.1	10.1	9.8
17	10.2	9.5	11.0	10.7	12.4	12.2	---	---	12.3	12.0	10.0	9.8
18	10.5	10.2	10.7	10.4	12.5	12.2	---	---	12.0	11.9	10.2	9.8
19	10.5	10.1	10.4	10.2	12.4	12.1	---	---	12.0	11.8	10.3	9.9
20	10.1	9.8	10.2	10.1	12.1	11.8	---	---	11.9	11.8	10.5	10.3
21	11.0	9.8	10.1	9.9	12.2	11.8	---	---	11.9	11.7	10.9	10.5
22	10.7	10.0	10.2	10.0	12.4	12.1	---	---	11.8	11.6	10.9	10.6
23	10.9	10.7	10.2	10.0	12.2	12.0	---	---	11.8	11.8	11.1	10.9
24	10.7	10.2	10.2	10.0	12.3	12.1	---	---	11.7	11.5	11.4	11.1
25	10.3	10.0	---	---	12.3	11.7	---	---	11.9	11.7	11.8	11.6
26	10.5	10.0	---	---	11.7	11.4	---	---	12.0	11.9	10.0	9.8
27	11.3	10.5	---	---	11.8	11.4	10.1	9.9	11.9	11.4	11.4	11.0
28	11.3	10.9	---	---	11.6	11.4	10.1	9.9	11.4	10.8	10.9	10.3
29	11.2	10.4	---	---	11.8	11.6	10.1	10.0	---	---	10.3	9.4
30	11.6	11.1	---	---	11.7	11.4	10.1	9.9	---	---	10.1	9.0
31	10.9	10.2	---	---	11.8	11.3	10.0	9.7	---	---	9.8	9.5
MONTH	11.6	8.2	11.5	8.4	12.8	10.7	11.8	9.5	12.3	9.0	11.9	8.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.9	9.7	9.9	9.4	8.5	7.2	7.6	7.1	6.9	6.0	8.0	7.0
2	9.8	9.1	9.6	9.3	8.8	7.4	7.7	7.4	6.9	6.1	7.8	6.6
3	9.8	9.2	9.4	9.1	8.7	7.7	7.8	7.5	7.1	6.2	7.6	6.4
4	9.6	9.2	9.1	8.8	9.0	7.9	7.8	7.3	7.1	6.3	7.8	6.4
5	9.2	9.0	9.0	8.6	8.6	7.8	7.7	7.2	7.1	6.2	7.2	5.8
6	9.7	9.2	8.9	8.4	8.6	7.6	7.5	7.2	6.9	6.2	6.8	5.2
7	10.6	9.7	8.7	8.3	8.8	7.7	7.4	7.1	7.0	6.0	7.1	6.0
8	10.7	10.1	8.3	8.1	9.0	7.9	7.5	7.0	6.8	5.9	7.1	6.3
9	10.2	9.8	9.3	8.2	8.5	7.5	7.4	7.0	7.0	5.8	6.9	6.3
10	10.2	9.9	9.7	9.0	9.2	8.1	7.4	7.1	7.0	5.9	7.0	6.1
11	9.9	9.5	10.0	9.3	8.8	7.9	7.6	6.9	7.2	6.0	7.2	6.4
12	9.6	9.3	9.9	9.6	8.8	8.0	7.6	7.1	6.7	6.0	7.2	6.7
13	9.2	8.7	9.6	9.1	8.8	7.5	7.6	6.8	7.0	5.8	7.0	6.7
14	8.7	8.5	9.4	8.8	8.3	7.2	7.6	7.2	7.0	6.3	7.0	6.3
15	8.5	8.3	9.2	9.0	8.6	7.1	7.8	7.2	7.1	6.3	7.1	6.6
16	8.5	8.3	9.1	8.7	7.7	6.8	7.4	7.1	7.0	6.3	7.0	5.9
17	8.4	8.1	8.9	8.5	7.7	6.4	7.3	6.8	7.0	6.1	7.3	6.1
18	8.3	8.1	8.8	8.3	7.3	6.0	7.2	6.7	7.3	6.2	7.5	7.0
19	8.1	7.8	8.5	8.1	7.2	5.9	7.1	6.5	7.7	6.8	7.3	6.6
20	9.2	7.7	8.4	8.0	7.1	6.1	7.2	6.4	7.7	7.0	7.2	6.4
21	9.1	8.8	8.4	7.8	7.1	6.0	7.1	6.0	7.8	6.9	7.7	7.0
22	9.0	8.6	8.1	7.8	7.1	6.3	6.6	5.9	7.5	6.6	7.8	7.4
23	8.8	8.3	8.2	7.7	7.3	6.4	7.1	6.3	7.6	6.6	8.0	7.3
24	8.9	8.2	8.6	7.5	7.0	6.3	7.3	6.6	7.5	7.1	7.8	7.3
25	9.6	8.9	8.0	7.3	7.0	6.2	6.8	6.4	7.5	6.6	7.6	7.0
26	9.6	9.3	8.3	7.5	6.7	6.2	7.5	6.1	8.2	7.0	7.6	6.9
27	9.8	9.6	8.3	7.4	6.6	6.1	7.2	6.3	8.2	7.0	7.8	6.9
28	9.6	9.2	8.0	5.9	6.7	6.1	7.3	6.8	7.8	7.1	8.1	7.2
29	9.9	9.4	---	---	6.8	6.1	6.8	6.2	8.1	7.0	8.5	7.4
30	9.9	9.5	---	---	7.3	6.1	6.9	6.1	7.6	6.8	8.6	7.8
31	---	---	8.7	6.5	---	---	6.9	6.2	8.1	6.9	---	---
MONTH	10.7	7.7	10.0	6.5	9.2	5.9	7.8	5.9	8.2	5.8	8.6	5.2
YEAR	12.8	5.2										

03219500 SCIOTO RIVER NEAR PROSPECT, OH

LOCATION.--Lat 40°25'10", long 83°11'50", Delaware County, Hydrologic Unit 05060001, on downstream side of pier of Hoskins Bridge, 1.5 mi (2.4 km) upstream from Ottawa Creek, 2.0 mi (3.2 km) south of Prospect, and 2.5 mi (4.0 km) downstream from Patton Run.

DRAINAGE AREA.--567 mi² (1,469 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to October 1932, October 1939 to current year. Published as "at Prospect" 1925-32. Gage-height records collected in this vicinity since 1915 are contained in reports of National Weather SErvice.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 886.9 ft (270.33 m) above mean sea level, adjustment of 1912 (levels by Corps of Engineers). July 24, 1925, to Oct. 31, 1932, nonrecording gage at site 2.5 mi (4.0 km) upstream at datum 4.8 ft (1.46 m) higher. Oct. 16 to Dec. 5, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--45 years, 450 ft³/s (12.74 m³/s), 10.78 in/yr (274 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Mar. 22, 1927, gage-height, 15.0 ft (4.57 m), from graph based on gage readings at site and datum then in use, and Jan. 21, 1959, gage height, 15.30 ft (4.663 m); minimum, 3.5 ft³/s (0.099 m³/s) Sept. 13, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913, reached a stage of 21.1 ft (6.43 m), discharge, 27,000 ft³/s (765 m³/s), computed by Franklin County Conservancy District, at site and datum used 1925-32.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft³/s (100 m³/s) Apr. 5, gage height, 8.57 ft (2.612 m), no peak above base of 3,600 ft³/s (102 m³/s); minimum, 6.1 ft³/s (0.17 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	45	21	20	18	815	466	280	82	151	35	16
2	38	45	19	20	18	515	811	248	70	485	29	16
3	23	46	23	20	18	369	2110	231	52	491	24	15
4	18	41	21	19	18	437	2670	618	41	251	19	13
5	18	38	19	19	17	946	3410	1720	34	159	17	12
6	20	33	18	18	17	1170	2590	1820	32	120	16	11
7	25	30	23	18	17	822	1440	1290	30	81	21	12
8	22	27	26	18	17	497	801	706	30	65	26	12
9	21	25	21	18	17	367	567	469	51	51	36	12
10	30	26	19	18	17	307	448	353	71	44	42	14
11	27	24	18	18	17	278	378	277	177	34	32	14
12	25	22	18	18	17	280	322	227	187	32	30	12
13	25	21	21	18	17	598	276	193	130	34	25	13
14	23	19	19	18	17	874	244	168	99	28	22	25
15	21	19	18	18	19	678	217	150	79	25	29	25
16	19	19	18	18	406	454	194	135	63	23	37	90
17	18	19	18	18	350	334	174	123	52	26	36	137
18	15	20	18	18	260	582	159	116	49	31	36	318
19	16	21	18	18	210	1420	151	109	40	32	36	335
20	22	19	19	18	180	1770	145	103	52	52	30	279
21	32	18	31	18	150	1520	155	92	71	58	25	261
22	26	18	24	18	140	1060	166	80	54	188	35	189
23	22	18	23	18	646	1270	255	77	41	217	32	129
24	32	18	23	18	1620	1410	408	81	35	123	27	87
25	60	18	22	18	1930	1200	430	69	34	70	27	60
26	55	19	22	18	1490	756	492	65	34	45	23	43
27	45	26	21	18	1160	522	508	63	32	34	21	32
28	36	24	21	18	910	475	402	66	53	28	19	22
29	33	20	21	18	---	774	375	60	75	25	18	22
30	31	23	20	18	---	981	333	51	71	26	19	21
31	38	---	20	18	---	700	---	50	---	35	17	---
TOTAL	849	761	643	566	9713	24181	21097	10090	1921	3064	841	2247
MEAN	27.4	25.4	20.7	18.3	347	780	703	325	64.0	98.8	27.1	74.9
MAX	60	46	31	20	1930	1770	3410	1820	187	491	42	335
MIN	13	18	18	18	17	278	145	50	30	23	16	11
CFSM	.05	.05	.04	.03	.61	1.38	1.24	.57	.11	.17	.05	.13
IN.	.06	.05	.04	.04	.64	1.59	1.38	.66	.13	.20	.06	.15

CAL YR 1976 TOTAL 137356 MEAN 375 MAX 6590 MIN 13 CFSM .66 IN 9.01
WTR YR 1977 TOTAL 75973 MEAN 208 MAX 3410 MIN 11 CFSM .37 IN 4.98

03219500 SCIOTO RIVER NEAR PROSPECT, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 03...	1000	387	570	7.6	.5	11.4	79	2.8	270	150	75	21
JUN 08...	1620	30	860	8.6	16.5	12.8	130	4.7	350	140	90	31

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 03...	15	4.2	148	0	121	5.9	110	33	.2	7.1	339	6.7
JUN 08...	37	5.6	237	13	216	1.1	150	47	.7	8.4	500	4.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 03...	.10	.46	.31	1	40	11	50	6	40	.0	20	7.4
JUN 08...	.04	.11	1.2	2	30	3	30	2	40	.0	20	7.1

03220000 MILL CREEK NEAR BELLEPOINT, OH

LOCATION.--Lat 40°14'54", long 83°10'26", Delaware County, Hydrologic Unit 05060001, on left bank at upstream side of county road bridge, 1.2 mi (1.9 km) west of Bellepoint, 1.5 mi (2.4 km) upstream from mouth, and 2.3 mi (3.7 km) downstream from Blues Creek.

DRAINAGE AREA.--178 mi² (461 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 865.14 ft (263.695 m) above mean sea level, adjustment of 1912 (levels by students of Ohio State University, City of Columbus bench mark). Prior to Jan. 1, 1948, nonrecording gage, at same site and datum.

REMARKS.--Records fair except those for winter periods, which are poor. Diurnal fluctuation caused by stone quarry upstream from station.

AVERAGE DISCHARGE.--35 years, 148 ft³/s (4.191 m³/s), 11.29 in/yr (287 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) Jan. 21, 1959, gage height, 13.85 ft (4.221 m), from rating curve extended above 14,000 ft³/s (396 m³/s); no flow Sept. 25, 26, 1944, Sept. 19, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 18.0 ft (5.49 m) occurred in March 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,190 ft³/s (147 m³/s) Apr. 3 (base, 2,500 ft³/s, 70.8 m³/s), gage height, 8.64 ft (2.633 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	26	9.2	3.7	3.8	153	71	75	6.8	34	6.1	2.1
2	6.6	18	8.1	3.6	3.8	91	1820	68	5.2	36	3.2	4.0
3	7.6	15	7.1	3.6	3.8	71	4040	59	5.5	14	2.1	4.3
4	6.2	12	5.9	3.6	3.8	315	1610	448	4.9	9.7	1.9	4.6
5	4.3	12	5.4	3.6	3.8	689	813	930	5.2	7.6	2.5	4.6
6	4.3	9.8	5.4	3.7	3.8	328	474	423	5.2	6.1	2.9	4.0
7	5.0	8.6	5.2	3.7	3.8	161	257	224	4.6	5.8	6.5	2.9
8	8.1	7.1	5.0	3.7	3.8	101	171	137	18	7.2	6.8	2.1
9	13	6.2	4.8	3.7	3.8	75	116	83	606	8.4	9.3	2.2
10	13	5.8	4.7	3.8	3.8	64	88	58	399	9.3	6.5	4.3
11	17	6.6	4.6	3.8	25	58	71	43	151	8.8	6.5	4.6
12	9.8	9.2	4.5	3.9	70	105	57	38	68	6.8	6.1	4.9
13	8.6	5.8	4.4	3.9	177	684	49	31	39	7.6	7.2	6.5
14	8.6	6.2	4.4	3.9	415	474	46	28	29	6.1	7.2	18
15	7.1	5.8	4.3	3.9	472	209	39	24	24	5.5	6.8	19
16	8.6	5.0	4.2	3.9	302	118	33	21	18	4.6	5.5	12
17	8.1	5.0	4.1	3.9	223	80	32	19	15	7.6	6.8	8.4
18	6.6	5.4	4.0	3.9	164	474	29	18	13	6.8	6.5	13
19	5.0	6.2	3.9	3.9	112	793	29	18	11	6.8	6.1	12
20	5.4	6.2	3.8	3.9	88	344	29	16	9.7	7.2	4.9	14
21	6.2	6.2	3.8	3.9	63	236	33	15	8.0	8.8	4.9	10
22	11	6.2	3.8	3.9	139	285	31	14	7.6	7.2	4.0	8.4
23	13	5.4	3.8	3.9	633	461	39	15	7.2	5.2	2.9	8.8
24	15	5.0	3.7	3.9	1030	252	47	14	7.2	4.6	2.7	6.5
25	41	5.8	3.7	3.9	769	142	62	14	6.8	4.6	2.7	4.6
26	25	7.6	3.7	3.9	436	96	68	12	6.8	3.4	3.4	5.2
27	22	8.6	3.7	3.9	260	75	57	10	6.5	2.5	3.7	3.7
28	17	12	3.7	3.9	211	88	59	9.7	8.4	2.5	4.0	4.9
29	13	10	3.7	3.9	---	204	144	9.3	15	2.9	3.2	5.5
30	12	8.1	3.7	3.9	---	200	111	8.4	11	3.4	2.9	5.2
31	14	---	3.7	3.9	---	109	---	8.0	---	5.5	2.5	---
TOTAL	348.7	256.8	144.0	118.5	5619.0	7535	10525	2890.4	1522.6	256.5	148.3	202.3
MEAN	11.2	8.56	4.65	3.82	201	243	351	93.2	50.8	8.27	4.78	6.74
MAX	41	26	9.2	3.9	1030	793	4040	930	606	36	9.3	19
MIN	4.3	5.0	3.7	3.6	3.8	58	29	8.0	4.6	2.5	1.9	2.1
CFSM	.06	.05	.03	.02	1.13	1.37	1.97	.52	.29	.05	.03	.04
IN.	.07	.05	.03	.02	1.17	1.57	2.20	.60	.32	.05	.03	.04

CAL YR 1976 TOTAL 32887.8 MEAN 89.9 MAX 2890 MIN 2.4 CFSM .51 IN 6.87
WTR YR 1977 TOTAL 29567.1 MEAN 81.0 MAX 4040 MIN 1.9 CFSM .46 IN 6.18

03220000 MILL CREEK NEAR BELLEPOINT, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
03...	1200	77	690	7.8	2.0	12.0	87	1.9	310	160	78	29
JUN												
22...	0940	7.5	970	7.9	18.5	6.3	63	1.8	420	200	100	41

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
03...	23	4.6	187	0	153	4.7	140	43	.2	6.4	416	4.3
JUN												
22...	34	5.4	268	0	220	5.4	200	50	.5	8.1	571	6.7

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
03...	.05	.42	.18	1	40	24	30	24	40	.0	--	6.6
JUN												
22...	.02	.08	.31	3	<10	7	10	3	10	.0	10	5.7

03221000 SCIOTO RIVER BELOW O'SHAUGHNESSY DAM, NEAR DUBLIN, OH

LOCATION.--Lat 40° long 83°07'14", Delaware County, Hydrologic Unit 05060001, on left bank, 0.2 mi (0.3 km) north of county line, 0.8 mi (1.3 km) downstream from O'Shaughnessy Dam, and 3.0 mi (4.8 km) north of Dublin.

DRAINAGE AREA.--980 mi² (2,538 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to current year.

REVISED RECORDS.--WSP 803: 1924-35. WSP 1725: 1924. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 775.00 ft (236.220 m) above mean sea level, adjustment of 1912. Prior to Aug. 26, 1921, nonrecording gage at site 0.8 mi (1.3 km) upstream at same datum. Aug. 26, 1921, to Oct. 13, 1924, nonrecording gage at site 100 ft (30 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1924 by O'Shaughnessy Reservoir 0.8 mi (1.3 km) upstream (see station 03220500).

AVERAGE DISCHARGE.--56 years, 778 ft³/s (22.03 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft³/s (1,560 m³/s) Jan. 22, 1959, gage height, 22.04 ft (6.718 m), from floodmark; minimum daily, 0.4 ft³/s (0.011 m³/s) Nov. 8, 1924.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913 reached a stage of 24.6 ft (7.50 m), discharge, 74,500 ft³/s (2,110 m³/s) at Griggs Dam, 9 mi (14 km) downstream from gage, computed by C.E. Sherman, Ohio State University.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,860 ft³/s (279 m³/s) Apr. 2, gage height, 10.24 ft (3.121 m); minimum daily, 5.2 ft³/s (0.15 m³/s) Feb. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	81	40	27	100	1160	743	500	81	151	47	114
2	31	92	56	27	110	822	3790	458	99	279	33	114
3	40	92	26	26	125	563	8960	408	77	527	32	112
4	38	83	33	26	130	831	6200	1090	69	388	30	110
5	34	81	36	25	130	1910	5160	3280	62	256	26	117
6	40	73	38	25	130	1920	3890	2790	123	177	26	64
7	70	81	54	24	133	1370	2350	2000	48	143	41	6.5
8	33	61	38	24	140	855	1400	1230	63	123	41	38
9	40	36	42	24	160	602	952	777	690	105	50	71
10	18	50	42	24	185	489	743	558	565	73	54	72
11	28	54	42	23	210	436	612	445	374	59	61	72
12	38	58	42	23	215	507	522	370	356	59	71	73
13	52	40	36	23	220	1580	449	321	277	64	46	66
14	33	42	36	23	223	1850	410	283	216	47	46	60
15	38	43	38	23	75	1300	355	246	161	42	45	56
16	40	40	40	23	5.8	839	317	220	133	41	46	32
17	54	38	40	23	5.8	589	301	204	114	62	80	7.6
18	17	42	36	23	5.2	1210	276	140	99	51	46	9.3
19	17	45	40	23	5.2	2660	260	183	93	57	42	12
20	42	42	47	23	5.2	2510	254	157	81	52	39	198
21	29	47	37	23	5.2	2190	250	142	72	65	37	274
22	73	40	34	23	7.9	1770	273	140	77	87	39	246
23	107	36	33	23	70	2040	336	143	80	174	36	189
24	107	36	33	23	1730	2050	476	141	68	198	60	136
25	120	36	32	23	2940	1690	594	129	66	154	25	100
26	117	50	31	33	2510	1200	647	112	61	86	26	85
27	107	63	31	75	1820	806	705	92	55	50	27	64
28	34	68	30	104	1370	706	666	94	68	42	28	46
29	7.2	47	29	101	---	986	715	97	85	39	27	32
30	25	38	29	101	---	1430	617	97	99	44	28	29
31	104	---	28	101	---	1130	---	76	---	35	78	---
TOTAL	1576.2	1635	1149	1112	12766.3	40001	43233	16973	4512	3730	1313	2605.4
MEAN	50.8	54.5	37.1	35.9	456	1290	1441	548	150	120	42.4	86.8
MAX	120	92	56	104	2940	2660	8960	3280	690	527	80	274
MIN	7.2	36	26	23	5.2	436	250	76	48	35	25	6.5

CAL YR 1976 TOTAL 218419.2 MEAN 597 MAX 11900 MIN 7.2
WTR YR 1977 TOTAL 130605.9 MEAN 358 MAX 8960 MIN 5.2

03221000 SCIOTO RIVER BELOW O'SHAUGHNESSY DAM, NEAR DUBLIN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
APR 04...	1330	6040	380	7.8	11.5	9.8	89	5.6	170	72	46	[illegible]
JUN 23...	1455	84	690	8.2	23.0	8.1	93	3.1	300	140	74	28

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
APR 04...	7.4	4.4	118	0	97	3.0	43	19	.2	6.3	198	5.6
JUN 23...	17	3.9	200	0	164	2.0	120	36	.2	1.3	379	5.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
APR 04...	.11	.30	.47	8	10	21	30	10	20	.0	40	--
JUN 23...	.11	.19	.11	4	10	4	10	4	40	.0	10	5.9

03223000 OLENTANGY RIVER AT CLARIDON, OH

LOCATION.--Lat 40°34'58", long 82°59'20", in NW 1/4 sec. 26, T.5 S., R.16 E., Marion County, Hydrologic Unit 05060001, on left bank 900 ft (274 m) downstream from bridge on State Highway 95, 0.5 mi (0.8 km) east of Claridon, 0.8 mi (1.3 km) downstream from Otter Creek, and 1.4 mi (2.3 km) upstream from Beaver Run.

DRAINAGE AREA.--157 mi² (407 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1235: 1947, 1948(P). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 961.72 ft (293.132 m) above mean sea level, (levels by Corps of Engineers). Prior to Aug. 18, 1969 water-stage recorder at site 1,000 ft (305 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--31 years, 148 ft³/s (4.191 m³/s), 12.80 in/yr (325 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft³/s (422 m³/s) Jan. 22, 1959, gage height, 16.77 ft (5.111 m), from rating curve extended above 4,700 ft³/s (133 m³/s) on basis of contracted-opening measurement of peak flow; no flow Oct. 2-26, 1953, Sept. 14-22, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0900	*2210	62.6	*9.63	2.935	Apr. 3	1130	2070	58.6	9.41	2.868

Minimum discharge, 3.4 ft³/s (0.096 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	44	18	9.1	9.0	282	147	86	13	95	9.7	4.8
2	9.8	62	14	9.1	9.0	183	530	74	12	132	7.6	4.4
3	8.9	48	14	9.0	9.0	156	1830	79	11	43	5.8	4.6
4	8.1	37	13	9.0	9.0	312	1800	386	10	21	5.1	4.3
5	7.4	30	12	9.0	9.0	658	846	823	9.9	182	4.6	8.1
6	7.2	25	12	9.0	9.0	406	490	528	9.9	280	8.5	6.2
7	7.4	22	11	9.0	9.0	234	306	278	11	66	22	5.1
8	7.1	19	11	9.0	9.0	176	224	172	12	30	17	4.0
9	9.8	18	11	9.0	9.0	143	169	116	20	26	15	3.4
10	11	18	11	9.0	9.0	138	136	88	18	21	9.9	3.7
11	15	16	11	9.0	10	131	115	69	19	20	8.3	4.1
12	16	16	10	9.0	22	131	96	58	14	20	13	4.1
13	11	15	10	9.0	39	504	81	50	13	24	13	5.5
14	8.6	14	10	9.0	64	524	73	46	12	21	14	7.4
15	8.1	14	10	9.0	136	280	68	42	11	12	11	46
16	7.6	14	9.8	9.0	168	188	59	36	9.9	11	8.7	46
17	7.3	13	9.8	9.0	128	128	53	33	11	35	7.4	96
18	9.4	13	9.8	9.0	94	572	50	31	12	40	7.4	135
19	7.9	14	9.7	9.0	80	1320	47	29	15	18	6.0	201
20	8.5	14	9.6	9.0	78	1040	45	26	11	11	5.3	290
21	18	13	9.6	9.0	57	455	53	24	8.5	23	5.3	111
22	21	14	9.5	9.0	63	406	59	21	7.2	82	22	49
23	20	13	9.4	9.0	449	587	159	36	6.0	126	48	30
24	28	12	9.3	9.0	1570	372	219	31	6.2	32	24	22
25	105	12	9.3	9.0	2170	231	162	27	7.0	17	13	17
26	124	13	9.3	9.0	1780	168	162	30	7.4	12	9.2	14
27	80	17	9.2	9.0	764	135	163	30	6.8	11	7.2	12
28	54	26	9.2	9.0	490	177	121	19	6.8	8.9	6.0	9.7
29	38	30	9.1	9.0	---	520	122	16	7.4	7.6	4.9	8.7
30	32	21	9.1	9.0	---	446	118	14	7.4	7.4	4.8	8.1
31	32	---	9.1	9.0	---	217	---	13	---	7.8	4.8	---
TOTAL	732.1	637	328.8	279.2	8244.0	11220	8503	3311	325.4	1442.7	348.5	1165.2
MEAN	23.6	21.2	10.6	9.01	294	362	283	107	10.8	46.5	11.2	38.8
MAX	124	62	18	9.1	2170	1320	1830	823	20	280	48	290
MIN	7.1	12	9.1	9.0	9.0	128	45	13	6.0	7.4	4.6	3.4
CFSM	.15	.14	.07	.06	1.87	2.31	1.80	.68	.07	.30	.07	.25
IN.	.17	.15	.08	.07	1.95	2.66	2.01	.78	.08	.34	.08	.28

CAL YR 1976 TOTAL 51044.6 MEAN 139 MAX 2960 MIN 7.1 CFSM .89 IN 12.09
WTR YR 1977 TOTAL 36536.9 MEAN 100 MAX 2170 MIN 3.4 CFSM .64 IN 8.66

03223000 OLENTANGY RIVER AT CLARIDON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 02...	1300	155	490	7.6	1.0	11.6	82	1.9	250	120	68	19
JUN 08...	1320	12	725	7.8	15.0	8.3	81	2.6	330	110	86	29

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 02...	12	3.1	161	0	132	6.5	76	29	.2	7.4	294	3.9
JUN 08...	23	3.5	270	0	221	6.8	110	34	.3	4.5	423	.51

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 02...	.04	.30	.12	0	30	4	80	2	50	.0	20	2.1
JUN 08...	.01	.07	.20	3	<10	3	39	2	40	.0	20	6.0

03225500 OLENTANGY RIVER NEAR DELAWARE, OH

LOCATION.--Lat 40°21'18", long 83°04'02", in NE 1/4 T.5 N., R.19 W., Delaware County, Hydrologic Unit 05060001, on left bank 500 ft (152 m) upstream from highway bridge, 1,000 ft (305 m) downstream from Delaware Dam, 1,300 ft (396 m) upstream from Norfolk and Western Railway bridge, and 4.0 mi (6.4 km) north of Delaware.

DRAINAGE AREA.--393 mi^2 (1,018 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to September 1934, April 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 799.58 ft (243.712 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1950, water-stage recorder at site 500 ft (152 m) downstream at datum 76.7 ft (23.38 m) higher.

REMARKS.--Records good. Flow completely regulated by Delaware Lake since 1951 (see station 03225000).

AVERAGE DISCHARGE.--50 years, 344 ft^3/s (9.742 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft^3/s (399 m^3/s) Mar. 21, 1927, gage height, 16.9 ft (5.15 m), site and datum then in use; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Sept. 14-29, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,450 ft^3/s (97.7 m^3/s) Feb. 25, gage height, 85.70 ft (26.121 m); minimum daily, 12 ft^3/s (0.34 m^3/s) June 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	52	93	37	18	970	181	191	22	34	25	25
2	87	51	27	37	17	472	134	126	18	179	25	21
3	123	42	28	37	17	361	503	182	19	272	19	21
4	123	66	28	27	23	381	649	357	257	268	16	21
5	123	105	28	23	39	753	30	908	14	136	27	21
6	123	132	28	23	24	1070	19	2040	14	174	39	21
7	121	132	28	24	24	1060	14	2160	12	250	39	21
8	119	93	28	24	23	677	1700	857	12	215	39	21
9	70	88	28	24	16	291	2980	504	16	182	39	21
10	20	89	38	24	21	257	2870	258	14	51	39	21
11	23	88	45	24	21	274	2890	148	13	41	39	20
12	23	117	45	24	21	283	1830	148	13	25	39	20
13	23	228	45	24	22	633	274	148	14	25	39	20
14	23	246	44	24	22	1470	274	148	14	24	39	20
15	23	99	44	24	74	1120	219	148	14	24	39	20
16	58	108	44	23	111	457	322	92	20	24	39	21
17	180	187	42	23	125	305	105	56	24	24	39	20
18	21	178	37	23	132	523	105	51	24	24	39	21
19	21	179	37	24	132	1500	105	51	24	24	39	20
20	21	261	37	23	132	2120	105	51	23	24	39	21
21	42	257	37	23	132	1810	105	51	23	24	34	21
22	23	175	37	23	137	1010	107	51	23	104	34	21
23	22	165	37	20	226	1040	156	60	23	141	34	21
24	22	139	37	20	736	1130	328	54	23	141	34	21
25	22	180	37	21	2460	563	439	53	23	140	34	21
26	22	179	37	18	3390	257	436	51	24	96	34	21
27	22	177	37	19	3280	258	433	41	24	57	35	21
28	22	177	37	18	2130	334	437	26	24	38	34	21
29	22	177	37	18	---	542	353	26	27	28	34	21
30	23	148	37	18	---	983	313	26	30	25	34	21
31	39	---	37	18	---	706	---	26	---	25	34	---
TOTAL	1662	4315	1181	732	13505	23610	18416	9089	825	2759	1072	627
MEAN	53.6	144	38.1	23.6	482	762	614	293	27.5	89.0	34.6	20.9
MAX	180	261	93	37	3390	2120	2980	2160	257	272	39	25
MIN	20	42	27	18	16	257	14	26	12	24	16	20

CAL YR 1976 TOTAL 104299.0 MEAN 285 MAX 4200 MIN 5.1
WTR YR 1977 TOTAL 77793.0 MEAN 213 MAX 3390 MIN 12

03225500 OLENTANGY RIVER NEAR DELAWARE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

REMARKS.--Temperature data collected at this site 1946 to 1961.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 17...	1500	314	615	8.1	9.0	11.2	96	2.0	250	110	60	19
JUN 09...	1145	15	590	8.2	18.0	9.7	100	3.0	250	94	64	21

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 17...	18	3.4	168	0	138	2.1	67	43	.1	6.5	308	4.8
JUN 09...	17	3.1	186	0	153	1.9	65	37	.2	4.1	303	3.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 17...	.04	.21	.12	2	10	2	20	7	30	.0	10	9.5
JUN 09...	.12	.08	.08	3	0	4	20	2	20	.0	10	6.2

03226800 OLENTANGY RIVER NEAR WORTHINGTON, OH

LOCATION.--Lat 40°06'37", long 83°01'55", in NW 1/4 T.2N., R.18W., Franklin County, Hydrologic Unit 05060001, on left bank 350 ft (107 m) downstream from Interstate Highway 270 bridge, 1.5 mi (2.4 km) northwest of Worthington and 2.8 mi (4.5 km) upstream from Rush Run.

DRAINAGE AREA.--497 mi² (1,287 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 1625: 1952(M). WSP 1908: Drainage area. WRD Ohio 1972: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 743.20 ft (226.527 m) above mean sea level.

REMARKS.--Records good except those for winter periods and no gage height record which are fair. Flow regulated by Delaware Lake 21 mi (34 km) upstream (see station 03225000).

AVERAGE DISCHARGE.--22 years, 436 ft³/s (12.35 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Jan. 21, 1959, gage height, 15.68 ft (4.779 m), from high-water mark in well; minimum daily, 8.5 ft³/s (0.24 m³/s) Sept. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1952 reached a stage of 15.3 ft (4.66 m), discharge, 15,100 ft³/s (428 m³/s), from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,430 ft³/s (154 m³/s) Apr. 2, gage height, 7.49 ft (2.283 m); minimum daily, 15 ft³/s (0.42 m³/s) Jan. 30, 31, Feb. 1-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	148	170	24	15	1160	428	322	31	41	30	31
2	70	103	70	24	15	685	2120	178	28	100	29	27
3	109	83	35	23	15	441	1760	171	23	300	25	26
4	129	79	26	22	15	669	1500	600	178	340	24	26
5	129	109	25	21	15	785	776	945	62	230	20	26
6	138	145	40	20	15	1140	503	1810	25	200	40	26
7	145	145	55	19	15	1100	220	2720	20	250	67	26
8	142	142	36	18	15	912	945	1060	40	290	52	26
9	152	135	34	18	15	455	3270	661	304	150	49	26
10	138	103	33	18	15	287	3140	373	105	70	44	26
11	38	132	35	18	15	316	3090	171	49	54	53	25
12	27	129	32	18	30	475	2730	158	36	35	56	25
13	29	182	31	17	142	1210	340	151	30	31	46	24
14	36	288	31	17	152	1440	310	148	30	30	41	25
15	29	261	30	17	93	1590	270	148	26	29	57	25
16	29	62	30	17	123	661	353	142	23	29	59	25
17	204	204	30	16	155	380	139	74	22	29	62	25
18	317	208	29	16	178	945	123	64	25	30	45	25
19	34	208	29	16	199	1500	123	61	32	30	39	25
20	25	231	29	16	182	2170	120	57	27	30	39	26
21	46	294	28	16	170	2220	123	56	27	30	39	26
22	81	277	28	16	213	1400	120	53	25	90	39	26
23	90	217	28	16	719	1080	139	53	27	125	35	26
24	90	148	27	16	1680	1190	224	59	26	122	34	26
25	79	163	27	16	2290	922	448	57	26	123	34	26
26	66	208	27	16	3930	328	448	54	26	123	32	26
27	55	208	27	16	3760	310	448	50	28	78	32	26
28	51	199	26	16	2960	366	517	45	37	57	31	26
29	38	199	26	16	---	531	600	33	34	46	32	26
30	36	210	26	15	---	847	387	32	32	39	33	26
31	114	---	25	15	---	945	---	31	---	34	32	---
TOTAL	2740	5220	1125	549	17141	28460	25714	10537	1404	3165	1250	776
MEAN	88.4	174	36.3	17.7	612	918	857	340	46.8	102	40.3	25.9
MAX	317	294	170	24	3930	2220	3270	2720	304	340	67	31
MIN	25	62	25	15	15	287	120	31	20	29	20	24

CAL YR 1976 TOTAL 133288 MEAN 364 MAX 4770 MIN 22
WTR YR 1977 TOTAL 98081 MEAN 269 MAX 3930 MIN 15

Note: No gage-height record Oct. 1 to Nov. 12, July 1 to July 25 and Aug. 31 to Sept. 30.

03226800 OLENTANGY RIVER NEAR WORTHINGTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

REMARKS.--Water temperature records collected at this site 1955 to 1968.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
03...	1500	421	415	7.8	3.0	12.0	89	4.0	180	61	48	14
JUN												
23...	1040	25	765	8.2	20.0	7.3	79	2.6	310	130	76	28

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
03...	15	4.5	118	0	97	3.0	56	33	.2	5.5	234	3.6
JUN												
23...	33	4.4	218	0	179	2.2	100	59	.4	1.8	410	.76

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
03...	.04	.38	.16	2	30	5	60	11	40	.0	20	7.8
JUN												
23...	.03	.16	.23	3	10	7	50	4	120	.7	20	6.8

03227500 SCIOTO RIVER AT COLUMBUS, OH

LOCATION.--Lat 39°54'34", long 83°00'33", Franklin County, Hydrologic Unit 05060001, on right bank at sewage-treatment plant of city of Columbus, 0.4 mi (0.6 km) downstream from bridge on Frank Road, 2.8 mi (4.5 km) upstream from Scioto Big Run, and 5 mi (8 km) downstream from Olentangy River.

DRAINAGE AREA.--1,629 mi² (4,219 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: 1927(M). WSP 803: 1922-24, 1926-30, 1932-33. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.00 ft (207.264 m) above mean sea level. Prior to Oct. 1, 1924, nonrecording gage at site 200 ft (61 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Griggs Reservoir 10.4 mi (16.7 km) upstream (see station 03221500), O'Shaughnessy Reservoir 20.4 mi (32.8 km) upstream (see station 03220500), and Delaware Lake 35 mi (56 km) upstream from station (see station 03225000). Records include sewage return flow from Frank Road Treatment Plant. Shadeville Treatment Plant flow enters downstream. Water supply for city of Columbus is obtained from Scioto River downstream from Griggs Dam, Big Walnut Creek downstream from Central College, and from well field in Alum Creek basin. For statement on diversions from Alum Creek basin and Big Walnut Creek, see REMARKS for stations 03229000 and 03229500.

AVERAGE DISCHARGE.--57 years, 1,369 ft³/s (38.8 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,200 ft³/s (1,930 m³/s) Jan. 22, 1959, gage height, 27.22 ft (8.297 m), from high-water mark in well, from rating curve extended above 46,000 ft³/s (1,300 m³/s); minimum daily, 47 ft³/s (1.33 m³/s) Sept. 6, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913 reached a stage of 25.9 ft (7.89 m), discharge, 138,000 ft³/s (3,910 m³/s), estimated by Franklin County Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft³/s (382 m³/s) Apr. 3, gage height, 16.90 ft (5.151 m); minimum daily, 120 ft³/s (3.40 m³/s) Dec. 30 to Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	415	283	120	150	2590	1510	1430	241	812	170	145
2	237	367	273	120	230	1840	3790	1280	202	476	158	162
3	215	347	174	120	280	1180	11600	1150	211	727	153	651
4	283	287	145	120	310	1780	8760	1220	186	947	138	162
5	273	268	153	120	340	2490	7050	1400	383	782	142	126
6	311	307	211	120	340	3160	4850	2600	224	539	138	710
7	331	321	352	120	335	2730	3060	3200	219	454	922	246
8	341	326	200	120	340	2080	2130	2800	198	663	367	170
9	367	268	170	120	340	1340	4180	1800	1340	512	287	158
10	302	241	155	120	370	953	3910	1420	1000	383	190	142
11	194	241	145	120	480	903	3680	1100	669	404	297	138
12	174	241	140	120	620	1600	3550	920	556	383	589	153
13	228	241	140	120	640	3870	1260	830	507	283	259	170
14	215	372	135	120	450	3420	922	660	449	228	224	640
15	237	399	135	120	270	3450	842	550	367	202	190	264
16	211	297	135	120	240	2000	794	460	307	202	211	686
17	211	198	130	120	225	1190	704	410	268	410	206	352
18	388	352	130	120	215	2550	572	370	268	302	215	321
19	224	331	130	120	210	3880	539	340	287	206	166	331
20	287	321	130	120	205	4760	539	297	255	215	142	241
21	287	404	130	120	200	4730	518	287	241	215	206	215
22	182	415	130	120	331	3770	550	287	224	224	302	308
23	182	321	125	120	710	3000	651	378	232	211	241	336
24	512	316	125	120	1850	3350	953	347	228	437	211	287
25	321	259	125	120	4330	2920	1110	302	219	507	166	241
26	237	347	125	120	8720	1840	1210	259	206	415	170	206
27	202	383	125	120	5110	1360	1220	224	404	292	186	190
28	190	326	125	120	8460	1390	1280	228	1100	224	134	174
29	202	336	122	120	---	1450	1730	268	497	278	158	153
30	211	307	120	120	---	2140	1600	283	311	219	198	153
31	512	---	120	120	---	2410	---	241	---	162	153	---
TOTAL	8331	9554	4838	3720	36301	76126	75064	27341	11799	12314	7289	8311
MEAN	269	318	156	120	1296	2456	2502	882	393	397	235	277
MAX	512	415	352	120	8720	4760	11600	3200	1340	947	922	710
MIN	174	198	120	120	150	903	518	224	186	162	134	126

CAL YR 1976 TOTAL 412732 MEAN 1128 MAX 15700 MIN 120
WTR YR 1977 TOTAL 280988 MEAN 770 MAX 11600 MIN 120

03227500 SCIOTO RIVER AT COLUMBUS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 01...	1445	2630	440	7.5	2.0	13.2	96	5.7	170	77	44	14
JUL 06...	1430	422	640	8.5	28.5	11.8	150	5.7	260	100	65	24

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 01...	17	5.8	110	0	90	5.6	53	34	.2	4.8	227	3.2
JUL 06...	22	3.6	180	8	161	1.0	95	40	.4	.2	347	1.8

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 01...	.06	.62	.33	2	30	30	60	23	40	.0	60	9.8
JUL 06...	.04	.10	.12	3	10	6	30	36	10	.0	40	6.2

03228500 BIG WALNUT CREEK AT CENTRAL COLLEGE, OH

LOCATION.--Lat 40°06'13", long 82°53'03", T.2 N., R.17 W., Franklin County, Hydrologic Unit 05060001, on right bank at upstream side of county road bridge, 0.2 mi (0.3 km) east of Central College, 0.4 mi (0.6 km) downstream from Hoover Dam, and 3 mi (5 km) southeast of Westerville.

DRAINAGE AREA.--190 mi² (492 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 873: 1938. WSP 1435: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 815.16 ft (248.461 m) above mean sea level.

REMARKS.--Records good. Flow completely regulated by Hoover Reservoir since September 1954 (see station 03228400).

AVERAGE DISCHARGE.--39 years, 182 ft³/s (5.154 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s (674 m³/s) Jan. 21, 1959, gage height, 19.75 ft (6.020 m), from rating curve extended above 7,200 ft³/s (204 m³/s) on basis of computation of peak flow over Hoover Dam; no flow for many days in 1944 and 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,150 ft³/s (89.2 m³/s) Apr. 3, gage height, 9.53 ft (2.905 m); minimum daily, 84 ft³/s (2.379 m³/s) Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	198	99	96	110	97	109	122	113	169	116	132
2	208	197	99	96	110	96	204	125	124	110	126	139
3	208	197	98	96	109	103	1740	128	129	117	146	135
4	208	195	98	97	109	94	997	115	150	109	159	103
5	126	195	98	103	108	86	1890	131	145	131	147	107
6	131	195	103	105	109	84	703	135	124	136	133	110
7	133	194	109	105	123	95	338	225	127	141	155	127
8	143	144	107	103	126	101	299	202	136	116	138	111
9	145	106	107	97	119	106	217	165	150	115	110	122
10	145	107	103	97	119	104	212	140	121	118	122	113
11	143	117	100	98	113	109	165	132	115	126	117	106
12	143	109	99	103	111	134	151	140	109	107	133	130
13	142	109	98	112	115	208	150	128	123	124	107	131
14	179	109	99	110	112	158	148	128	131	129	107	155
15	213	109	101	110	112	109	146	128	120	130	107	151
16	213	109	101	110	111	103	147	143	131	131	115	160
17	212	109	100	110	110	104	148	141	119	123	117	113
18	211	109	99	110	110	201	138	141	115	149	115	99
19	211	104	99	107	110	109	124	140	133	118	127	132
20	212	101	100	110	110	99	125	168	127	147	117	118
21	132	101	99	112	111	98	123	148	128	126	108	107
22	132	101	99	112	118	101	147	151	133	127	119	118
23	196	101	100	112	125	91	160	139	118	132	118	113
24	203	101	100	112	122	104	124	137	122	129	115	113
25	197	101	99	111	113	109	120	143	123	134	111	113
26	196	101	98	110	111	102	120	148	139	117	135	114
27	195	100	98	110	111	91	122	160	146	119	120	114
28	195	99	98	110	111	104	136	173	193	132	110	121
29	195	100	98	110	---	102	119	133	137	123	133	110
30	196	100	99	110	---	102	123	127	117	112	115	115
31	208	---	96	110	---	102	---	157	---	120	129	---
TOTAL	5579	3818	3101	3294	3178	3406	9445	4493	3898	3917	3827	3632
MEAN	180	127	100	106	114	110	315	145	130	126	123	121
MAX	213	198	109	112	126	208	1890	225	193	169	159	160
MIN	126	99	96	96	108	84	109	115	109	107	107	99

CAL YR 1976 TOTAL 57714 MEAN 158 MAX 2520 MIN 88
WTR YR 1977 TOTAL 51588 MEAN 141 MAX 1890 MIN 84

03228500 BIG WALNUT CREEK AT CENTRAL COLLEGE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 21...	1345	105	420	8.6	7.5	13.8	120	2.8	180	80	47	16
JUN 30...	1000	106	390	8.0	16.5	9.6	98	1.5	160	60	43	13

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 21...	13	3.9	114	4	100	.5	48	30	.1	2.2	220	1.8
JUN 30...	10	3.6	123	0	101	2.0	47	21	.1	2.3	201	2.2

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 21...	.03	.09	.03	1	10	3	30	0	10	.4	70	--
JUN 30...	.00	.00	.03	3	<10	6	0	0	30	.0	30	7.5

03228750 ALUM CREEK NEAR KILBOURNE, OH

LOCATION.--Lat 40°21'24", long 82°55'18", T.5 N., R.17 W., Delaware County, Hydrologic Unit 05060001, on left bank at upstream side of bridge on County Road 34, 100 ft (30 m) downstream from West Branch Alum Creek, and 2.6 mi (4.2 km) northeast of Kilbourne.

DRAINAGE AREA.--64.9 mi² (168 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1973 to current year.

REVISED RECORDS.--WRD OH-75-1: 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 900.99 ft (274.622 m) above mean sea level.

REMARKS.--Records good except those for winter periods and no gage height, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,850 ft³/s (137 m³/s) Feb. 24, 1975, gage height, 12.05 ft (3.673 m); minimum, 0.56 ft³/s (0.016 m³/s) Aug. 1, 2, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,080 ft³/s (87.2 m³/s) Feb. 24 (base, 1,000 ft³/s 28.3 m³/s), gage height, 10.01 ft (3.051 m); minimum, 0.86 ft³/s (0.024 m³/s) Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	52	11	8.3	8.0	78	100	24	4.2	40	1.9	1.0
2	5.4	24	9.1	8.3	8.0	69	140	26	3.7	25	1.5	1.0
3	4.5	18	8.0	8.2	8.0	56	280	27	3.7	8.7	1.3	1.0
4	4.0	15	7.4	8.2	8.0	250	360	211	3.5	9.8	1.1	1.0
5	3.5	12	8.0	8.1	8.0	234	400	245	3.3	18	1.0	1.1
6	3.3	10	9.0	8.0	8.0	109	250	130	3.3	8.7	1.0	1.1
7	3.3	9.1	10	8.0	8.0	78	150	88	3.1	4.8	.93	1.1
8	4.0	8.4	13	8.0	8.0	58	70	52	4.0	19	1.5	1.4
9	5.1	7.6	24	8.0	8.0	53	57	35	13	13	3.3	1.4
10	8.7	7.3	21	8.0	8.0	49	45	27	7.6	6.0	2.7	1.4
11	6.6	7.3	18	8.0	8.4	44	40	21	5.1	4.0	1.9	1.2
12	5.4	6.6	15	8.0	11	87	35	19	4.8	4.0	2.9	1.1
13	4.8	6.6	13	8.0	22	68	33	16	4.5	3.7	3.7	1.1
14	4.2	6.9	12	8.0	50	54	30	15	4.2	2.7	2.3	4.0
15	4.8	8.7	11	8.0	90	536	26	14	3.7	2.2	6.0	4.0
16	5.1	7.3	11	8.0	140	213	24	12	3.1	1.9	7.3	4.0
17	5.4	8.4	11	8.0	250	149	22	11	2.9	2.2	3.7	6.0
18	5.4	7.6	10	8.0	245	115	21	11	3.3	3.3	2.7	3.5
19	5.7	5.4	10	8.0	245	136	20	9.8	3.3	11	1.9	2.3
20	7.3	5.7	10	8.0	245	225	19	8.7	2.9	5.1	1.6	2.0
21	11	5.7	9.8	8.0	240	270	18	8.0	2.3	14	1.5	1.7
22	9.4	6.3	9.6	8.0	321	257	20	6.3	2.2	33	1.6	1.6
23	8.0	6.6	9.4	8.0	927	151	26	6.3	2.0	11	1.7	1.6
24	25	5.7	9.3	8.0	2430	88	25	6.6	2.0	5.1	1.3	1.6
25	38	5.1	9.0	8.0	1790	63	26	6.9	3.7	3.5	1.4	1.5
26	22	6.9	8.8	8.0	488	55	24	5.7	4.2	2.7	1.3	1.6
27	14	16	8.8	8.0	168	50	21	5.1	3.3	2.2	1.2	1.5
28	10	16	8.6	8.0	111	73	32	4.5	8.7	1.9	1.1	1.4
29	8.4	13	8.5	8.0	---	108	57	4.5	14	1.9	1.0	1.4
30	8.0	15	8.4	8.0	---	55	33	4.5	8.4	2.0	1.0	1.3
31	52	---	8.4	8.0	---	78	---	4.2	---	2.0	1.0	---
TOTAL	308.1	330.2	346.1	249.1	7861.4	3909	2404	1063.1	138.0	272.4	64.33	55.9
MEAN	9.94	11.0	11.0	8.04	281	126	80.1	34.3	4.60	8.79	2.08	1.86
MAX	52	52	24	8.3	2430	536	400	245	14	40	7.3	6.0
MIN	3.3	5.1	7.4	8.0	8.0	44	18	4.2	2.0	1.9	.93	1.0
CFSM	.15	.17	.17	.12	4.33	1.94	1.23	.53	.07	.14	.03	.03
IN.	.18	.19	.19	.14	4.51	2.24	1.38	.61	.08	.16	.04	.03

CAL YR 1976 TOTAL 15290.40 MEAN 41.8 MAX 1100 MIN 1.3 CFSM .64 IN 8.76
WTR YR 1977 TOTAL 16995.63 MEAN 46.6 MAX 2430 MIN .93 CFSM .72 IN 9.74

Note: No gage height Oct. 1-6, Jan. 7 to Feb. 11, Mar. 19-22, and Mar. 30 to Apr. 12.

03228750 ALUM CREEK NEAR KILBOURNE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 22...	1300	213	590	8.0	4.5	11.4	88	2.3	240	140	65	20
JUN 16...	1000	3.2	1100	8.0	20.5	7.6	84	1.1	410	200	100	40

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 22...	20	3.3	128	0	105	2.0	79	66	.1	6.7	331	3.5
JUN 16...	58	4.2	256	0	210	4.1	160	120	.3	3.5	612	.10

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 22...	.02	.00	.05	1	10	0	30	6	10	.0	80	7.1
JUN 16...	.01	.05	.04	2	<10	2	50	0	20	.0	10	5.6

03228805 ALUM CREEK AT AFRICA, OH

LOCATION.--Lat 40°11'00", long 82°57'47", in SE 1/4 sec. 1, T.3 N., R.18 W., Delaware County, Hydrologic Unit 05060001, on right bank 400 ft (122 m) upstream of bridge on Lewis Center Road, 1,200 ft (366 m) downstream from outlet of Alum Creek dam, 0.3 mi (0.5 km) west of Africa, 2.8 mi (4.5 km) upstream from Westerville Reservoir outlet, and 4.2 mi (6.8 km) northwest of Westerville.

DRAINAGE AREA.--122 mi² (316 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water year 1962 (occasional low-flow measurements) June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft (243.840 m) above mean sea level (levels by Corps of Engineers). Oct. 17, 1973 to July 9, 1974 nonrecording gage at bridge 400 ft (121.920 m) downstream at same datum. Prior to Oct. 17, 1973 water-stage recorder 600 ft (182.880 m) downstream at datum 17.37 ft (5.294 m) higher.

REMARKS.--Records good except those for the winter period, which are fair. Flow regulated by Alum Creek Lake since August 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,160 ft³/s (174 m³/s) Mar. 10, 1964, gage height, 13.95 ft (4.252 m), from graph based on gage readings, site and datum then in use; no flow at times 1963-65.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 5, 1963 reached a stage of 14.2 ft (4.33 m), from floodmarks, discharge, 6,460 ft³/s (183 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) Apr. 11, gage height, 27.04 ft (8.242 m); minimum daily, 2.80 ft³/s (0.079 m³/s) June 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	33	25	200	9.5	783	9.8	35	6.4	4.4	3.3	7.0
2	119	44	25	200	9.4	461	154	88	5.8	4.1	3.5	7.1
3	153	45	25	200	9.3	201	354	112	5.1	3.9	3.5	7.2
4	157	85	25	200	9.1	173	169	236	6.7	4.0	3.6	7.2
5	157	133	25	200	9.1	173	9.8	363	6.9	3.9	3.6	7.2
6	160	133	22	200	9.0	173	7.5	363	6.8	3.7	3.4	7.2
7	161	133	19	200	9.0	173	6.7	363	6.5	4.0	4.2	7.0
8	161	133	19	200	8.9	173	557	365	7.0	3.9	3.9	6.9
9	127	133	19	200	8.8	173	557	117	7.2	3.8	3.9	6.9
10	84	133	114	174	8.8	169	898	13	6.1	3.6	3.9	6.9
11	84	133	200	68	8.8	169	874	13	6.3	3.7	4.4	6.9
12	55	133	200	28	8.8	177	1080	13	6.3	3.9	4.5	6.7
13	20	133	200	16	8.7	307	1280	13	6.2	3.6	4.2	6.8
14	19	133	200	11	8.6	425	842	12	6.4	3.6	4.3	8.0
15	19	95	200	11	8.6	441	425	12	6.7	3.4	4.8	7.2
16	20	32	200	10	8.6	456	243	12	5.3	3.4	5.2	8.1
17	20	35	200	10	8.6	456	240	12	6.4	3.6	7.3	7.4
18	20	34	200	10	8.6	461	141	12	4.0	3.5	5.4	7.6
19	20	35	200	10	8.6	461	7.5	12	3.3	3.4	5.6	7.7
20	20	36	200	10	8.6	461	7.6	12	3.8	3.3	6.0	7.5
21	20	36	200	10	8.6	461	6.1	12	4.5	3.4	6.3	7.7
22	20	36	200	10	8.6	441	11	11	4.4	3.3	6.5	7.8
23	20	36	200	18	48	415	15	9.4	5.2	3.4	7.1	7.9
24	20	36	200	14	263	391	16	7.2	4.5	3.3	7.3	8.1
25	20	36	200	10	684	111	16	10	3.0	3.1	7.5	8.1
26	20	28	200	10	874	9.8	16	9.5	2.8	3.1	7.5	8.0
27	19	24	200	10	747	9.5	16	7.7	4.4	3.0	7.2	7.9
28	19	24	200	9.8	644	9.8	17	7.4	3.8	3.0	7.2	8.1
29	19	24	200	9.7	---	9.5	29	7.2	3.7	3.2	7.2	7.4
30	19	24	200	9.6	---	9.5	35	7.3	3.9	3.3	7.2	7.8
31	22	---	200	9.5	---	9.8	---	7.5	---	3.4	7.2	---
TOTAL	1878	2108	4518	2278.6	3454.6	8342.9	8040.0	2274.2	159.4	110.2	166.7	223.3
MEAN	60.6	70.3	146	73.5	123	269	268	73.4	5.31	3.55	5.38	7.44
MAX	161	133	200	200	874	783	1280	365	7.2	4.4	7.5	8.1
MIN	19	24	19	9.5	8.6	9.5	6.1	7.2	2.8	3.0	3.3	6.7

CAL YR 1976 TOTAL 24038.10 MEAN 65.7 MAX 1210 MIN .90
WTR YR 1977 TOTAL 33553.90 MEAN 91.9 MAX 1280 MIN 2.8

03228805 ALUM CREEK AT AFRICA, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 22...	1615	484	520	8.0	5.5	11.6	92	2.3	210	95	56	18
JUN 16...	1415	5.8	500	7.9	24.0	9.2	110	2.4	200	88	54	16

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 22...	20	4.1	140	0	115	2.2	70	40	.1	1.5	279	.79
JUN 16...	17	4.0	138	0	113	2.8	67	35	.2	1.7	263	1.7

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 22...	.01	.12	.01	1	10	2	20	5	190	.4	100	5.4
JUN 16...	.02	.02	.02	2	10	3	10	0	50	.0	20	7.0

03229000 ALUM CREEK AT COLUMBUS, OH

LOCATION.--Lat 39°56'42", long 82°56'28", in NW 1/4 sec. 24, T.5 N., R.22 W., Franklin County, Hydrologic Unit 05060001, on left bank 0.2 mi (0.3 km) downstream from Livingston Avenue bridge in Columbus, and 6 mi (10 km) upstream from mouth.

DRAINAGE AREA.--189 mi² (490 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1923 to December 1935, January 1938 to current year.

REVISED RECORDS.--WSP 758: 1933. WSP 1305: 1928(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 733.69 ft (223.629 m) above mean sea level.

REMARKS.--Records fair except those for winter and periods of no gage height record, which are poor. Flow regulated by Alum Creek Lake 19 mi (31 km) upstream, since Aug. 1973. There was no pumpage from the Alum Creek well field this year.

AVERAGE DISCHARGE.--51 years, 167 ft³/s (4.729 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s (748 m³/s) Jan. 22, 1959, gage height, 19.59 ft (5.971 m) (from high-water mark in well), from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of contracted-opening measurement of peak flow; no flow Sept. 21-29, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,850 ft³/s (52.4 m³/s) Aug. 7, gage height, 5.50 ft (1.676 m); minimum daily, 7.0 ft³/s (0.20 m³/s) Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	100	36	220	8.0	1350	46	84	38	301	17	17
2	115	87	33	220	8.0	780	862	112	18	44	17	18
3	190	81	38	220	8.0	450	771	172	14	26	15	237
4	194	72	42	220	8.0	350	521	284	15	27	19	40
5	194	155	36	222	7.8	350	471	480	14	27	14	151
6	219	165	51	222	7.8	350	168	449	15	20	14	327
7	202	162	119	223	7.8	350	98	432	15	19	535	46
8	194	162	81	224	7.8	350	275	415	67	67	112	27
9	270	162	40	225	7.0	345	995	331	602	27	67	20
10	130	162	36	222	10	345	945	49	98	23	30	19
11	109	162	265	100	14	350	958	34	44	64	103	19
12	106	158	225	38	25	380	1320	31	33	84	158	16
13	54	158	225	23	70	600	1270	30	27	56	33	18
14	36	158	230	16	66	780	1100	30	30	33	29	228
15	36	155	230	12	58	810	573	29	29	26	23	36
16	42	75	230	12	50	870	294	27	21	38	24	291
17	44	44	225	12	45	1000	287	27	20	186	33	98
18	44	49	225	12	40	1030	275	26	27	75	34	59
19	46	51	225	12	35	612	75	25	19	29	19	90
20	90	56	228	12	33	559	42	24	13	20	17	51
21	75	56	230	12	30	516	31	24	11	21	36	27
22	38	56	222	16	52	602	40	31	12	30	49	24
23	38	56	223	30	270	540	90	109	14	20	20	21
24	228	56	222	24	620	493	142	75	16	15	21	23
25	103	56	225	14	940	342	92	27	17	21	18	21
26	64	75	225	11	1490	75	64	26	17	31	30	20
27	54	81	228	10	1350	56	51	25	56	18	33	17
28	49	46	230	9.5	1210	109	162	19	335	16	20	17
29	38	42	228	9.5	---	95	158	19	75	21	25	17
30	54	38	230	9.3	---	69	98	19	34	27	26	18
31	260	---	225	126	---	54	---	29	---	21	19	---
TOTAL	3431	2936	5308	2738.3	6478.2	14962	12274	3494	1746	1433	1610	2013
MEAN	111	97.9	171	88.3	231	483	409	113	58.2	46.2	51.9	67.1
MAX	270	165	265	225	1490	1350	1320	480	602	301	535	327
MIN	36	38	33	9.3	7.0	54	31	19	11	15	14	16

CAL YR 1976 TOTAL 48164.0 MEAN 132 MAX 2250 MIN 13
WTR YR 1977 TOTAL 58423.5 MEAN 160 MAX 1490 MIN 7.0

Note: No gage-height record Dec. 12 to Mar. 38.

03229000 ALUM CREEK AT COLUMBUS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1960 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 21...	1015	400	560	7.9	5.0	11.8	92	3.5	230	100	61	19
JUL 07...	1615	14	690	8.5	29.5	13.0	170	6.4	270	86	75	20

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 21...	23	4.0	154	0	126	3.1	78	43	.2	2.6	307	1.1
JUL 07...	32	3.9	208	8	184	1.1	81	54	.3	5.8	383	.49

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 21...	.02	.16	.07	1	10	4	30	0	140	.7	70	--
JUL 07...	.03	.04	.06	4	10	4	10	19	30	.0	20	5.9

03229500 BIG WALNUT CREEK AT REES, OH

LOCATION.--Lat 39°51'24", long 82°57'26", in NE 1/4 sec. 26, T.4 N., R.22 W., Franklin County, Hydrologic Unit 05060001, on right bank at downstream side of bridge on Reese Road, 0.5 mi (0.8 km) southwest of Rees, 4.2 mi (6.8 km) downstream from Alum Creek, and 10.5 mi (16.9 km) upstream from mouth.

DRAINAGE AREA.--544 mi² (1,409 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1921 to December 1935, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1053: 1929, 1933(M), 1945. WSP 1305: 1923(M), 1925-26(M).

GAGE.--Water-stage recorder. Datum of gage is 698.20 ft (212.811 m) above mean sea level. Aug. 18, 1921, to Oct. 23, 1927, nonrecording gage at site 0.3 mi (0.5 km) upstream at datum 2.00 ft (0.610 m) higher prior to Oct. 1, 1924, at present datum thereafter.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Hoover Reservoir 26 mi (42 km) upstream (see station 03228400) and Alum Creek Lake 30 mi (48 km) upstream (see station 03228804) since August 1973. Beginning June 15, 1956, diversion at Morse Road Treatment Plant, 21 mi (34 km) upstream from station, for municipal water supply for the city of Columbus. For statement on pumpage from Alum Creek basin into municipal supply system of the city of Columbus, see REMARKS for station 03229000.

AVERAGE DISCHARGE.--53 years, 505 ft³/s (14.30 m³/s) (adjusted for diversion).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,800 ft³/s (1,690 m³/s) Jan. 22, 1959, gage height, 22.03 ft (6.715 m) (from high-water mark in well), from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 5 ft³/s (0.14 m³/s) Sept. 4, 5, 10-12, 1925; minimum daily since 1956, 9.4 ft³/s (0.266 m³/s) Sept. 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913 reached a stage of 20.5 ft (6.25 m), present datum, at site 0.3 mi (0.5 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,140 ft³/s (146 m³/s) Mar. 13, gage height, 9.55 ft (2.911 m); minimum daily, 29 ft³/s (0.821 m³/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	564	86	252	33	764	158	218	96	802	43	51
2	205	337	81	253	33	810	1610	234	66	371	40	59
3	264	283	67	255	33	411	2530	306	52	146	35	306
4	291	257	64	252	33	735	2240	364	43	90	35	160
5	280	281	65	250	33	817	2480	658	40	97	35	97
6	264	310	70	250	33	492	1460	583	43	84	29	548
7	252	302	278	250	33	395	637	641	41	68	817	173
8	223	297	207	250	33	340	521	620	47	116	724	94
9	322	257	110	250	33	315	1110	521	983	94	336	66
10	332	211	90	248	40	298	1050	226	361	72	156	51
11	217	202	221	105	50	281	1010	142	150	58	114	43
12	193	193	250	82	70	496	1280	131	99	142	555	40
13	148	197	250	70	200	3370	1250	111	82	106	206	42
14	109	188	250	60	175	1170	1180	102	76	96	194	422
15	100	194	250	55	155	802	684	90	87	78	123	293
16	146	155	250	50	140	684	439	82	58	111	88	720
17	152	89	250	46	125	620	371	78	52	218	84	616
18	153	88	250	43	110	1900	371	75	315	258	91	245
19	139	91	250	41	100	1260	258	68	131	125	66	436
20	206	89	350	40	90	836	196	64	70	81	53	439
21	264	90	250	38	84	747	125	62	55	81	47	203
22	114	88	250	37	166	880	118	58	50	234	131	129
23	96	86	250	35	956	855	237	118	45	81	78	99
24	511	86	250	40	2030	671	361	125	43	53	70	82
25	570	84	250	55	1440	540	394	78	47	57	62	84
26	303	91	250	55	1230	250	234	68	44	90	48	68
27	229	179	250	48	1040	194	192	62	45	55	78	63
28	188	139	250	45	859	303	293	52	633	51	59	57
29	172	109	250	38	---	330	616	45	502	42	45	54
30	187	93	250	36	---	245	300	46	213	57	82	50
31	807	---	250	34	---	192	---	50	---	46	70	---
TOTAL	7601	5630	6439	3563	9357	22003	23705	6078	4569	4060	4594	5790
MEAN	245	188	208	115	334	710	790	196	152	131	148	193
MAX	807	564	350	255	2030	3370	2530	658	983	802	817	720
MIN	96	84	64	34	33	192	118	45	40	42	29	40
(+)	112	106	102	109	120	114	118	129	131	132	135	124

CAL YR 1976 TOTAL 113225 MEAN 309 MAX 5210 MIN 32
WTR YR 1977 TOTAL 103389 MEAN 283 MAX 3370 MIN 29

+ Diversion, equivalent in cubic feet per second, for city of Columbus.

03229500 BIG WALNUT CREEK AT REES, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1330	846	530	8.0	6.0	11.3	90	1.6	220	92	58	18
JUL 06...	1000	87	560	7.6	27.5	5.5	69	4.4	230	75	63	17

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	23	3.4	156	0	128	2.5	78	44	.2	4.5	298	1.4
JUL 06...	24	3.6	186	0	153	7.5	61	41	.2	7.9	309	2.1

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.03	.13	.10	2	10	3	40	9	60	.3	110	7.0
JUL 06...	.08	.12	.29	3	<10	7	10	25	40	.0	40	9.4

03229600 SCIOTO RIVER BELOW SHADEVILLE, OH

LOCATION.--Lat 39°47'37", long 83°00'40", Pickaway County, Hydrologic Unit 05060001, on left bank at Picway Plant of Columbus and Southern Ohio Electric Company, 0.4 mi (0.6 km) downstream from Big Walnut Creek, and 3.2 mi (5.1 km) downstream from Shadeville.

DRAINAGE AREA.--2,266 mi² (5,869 km²).

PERIOD OF RECORD.--March 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1965 to current year.
pH: March 1965 to current year.
WATER TEMPERATURES: March 1965 to current year.
DISSOLVED OXYGEN: March 1965 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. No discharge records available.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,270 micromhos Feb. 1, 1971; minimum, 161 micromhos Nov. 28, 1973.
pH: Maximum, 9.5 units June 30, 1972; minimum, 5.1 units Mar. 16, 1972.
WATER TEMPERATURES: Maximum, 33.0°C Aug. 16, 1965; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Feb. 7-11, 1969; minimum, 0.0 mg/L on many days during 1965-68, 1971, 1973-75.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,020 micromhos Feb. 12; minimum, 360 micromhos Aug. 8.
pH: Maximum, 8.5 units Aug. 28; minimum, 7.0 units Oct. 31, Nov. 1.
WATER TEMPERATURES: Maximum, 31.0° July 19, 20; minimum, 0.0°C Jan. 18.
DISSOLVED OXYGEN: Maximum, 13.4 mg/L Aug. 28; minimum, 2.1 mg/L Aug. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
25...	0945	3850	592	8.1	6.0	10.8	86	3.0	240	120	65	20
JUN												
22...	1450	296	825	7.5	23.0	4.2	48	6.2	270	100	69	23

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
25...	22	3.9	152	0	125	1.9	84	42	.2	5.6	318	3.9
JUN												
22...	50	7.0	200	0	164	10	120	59	.7	7.1	435	3.1

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
25...	.06	.56	.31	2	30	8	30	9	30	.0	120	--
JUN												
22...	.44	3.5	2.5	3	10	18	50	13	60	.0	40	7.3

03229600 SCIOTO RIVER BELOW SHADEVILLE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	705	674	524	450	818	791	834	746	975	951	---	---
2	---	---	581	525	840	783	794	726	965	953	---	---
3	---	---	653	584	861	818	753	711	978	945	---	---
4	693	666	665	630	870	839	753	689	983	963	---	---
5	678	638	690	666	897	864	815	743	965	956	---	---
6	704	659	714	681	890	855	840	797	957	950	---	---
7	708	657	696	657	858	800	849	810	948	936	---	---
8	698	668	666	641	827	807	860	810	939	921	---	---
9	702	651	684	647	848	810	860	794	960	911	---	---
10	654	587	714	665	863	842	822	797	999	959	---	---
11	638	596	722	701	858	816	---	---	1010	983	---	---
12	683	633	740	704	824	755	---	---	1020	1010	---	---
13	747	683	743	699	746	668	---	---	1010	998	---	---
14	780	749	746	720	695	662	---	---	1000	966	---	---
15	815	749	720	701	723	686	---	---	986	971	---	---
16	819	732	716	689	725	699	---	---	983	963	---	---
17	756	722	749	716	737	701	---	---	968	948	---	---
18	762	668	824	728	735	708	---	---	965	951	---	---
19	686	653	780	759	737	698	---	---	978	960	---	---
20	729	671	792	750	717	690	---	---	978	951	---	---
21	737	632	777	747	722	704	---	---	953	941	---	---
22	696	638	740	717	788	717	---	---	---	---	606	596
23	759	701	753	728	765	716	---	---	---	---	602	581
24	776	561	789	755	815	725	---	---	---	---	602	591
25	551	500	800	750	744	716	---	---	---	---	600	593
26	596	534	807	767	737	716	---	---	---	---	647	603
27	644	599	764	717	767	714	---	---	---	---	675	650
28	699	635	731	701	762	732	---	---	---	---	683	666
29	729	695	725	711	803	756	---	---	---	---	698	678
30	731	708	812	711	815	743	---	---	---	---	693	686
31	734	468	---	---	798	738	960	951	---	---	693	672
MONTH	819	468	824	450	897	662	960	689	1020	911	698	581

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	707	675	665	642	795	761	726	453	846	768	851	803
2	713	450	692	665	858	797	558	482	866	842	885	854
3	504	390	714	687	917	858	648	560	911	857	866	676
4	458	432	734	696	920	891	665	605	914	896	698	661
5	474	416	687	638	953	837	690	656	902	891	755	706
6	462	413	647	632	827	798	723	690	914	888	811	656
7	516	464	642	593	845	824	773	722	906	629	682	644
8	567	519	591	569	---	---	782	684	528	360	740	666
9	605	521	591	578	---	---	723	689	540	474	825	750
10	521	509	644	588	---	---	755	723	620	521	864	807
11	507	497	684	639	---	---	792	744	722	624	879	837
12	506	494	704	684	---	---	782	705	536	468	888	861
13	528	501	729	701	---	---	765	711	629	473	894	786
14	548	530	738	711	782	726	792	750	653	609	884	611
15	603	546	743	717	798	750	857	794	704	611	608	558
16	651	599	740	714	827	783	872	800	770	705	698	498
17	651	633	753	726	866	831	884	801	790	728	561	467
18	663	651	797	749	867	744	779	572	793	761	687	552
19	695	656	807	777	812	699	692	599	818	788	717	581
20	719	689	855	780	758	726	819	666	851	820	603	563
21	740	707	869	822	798	750	797	696	875	841	674	596
22	758	720	867	827	834	795	725	642	884	779	788	696
23	771	714	858	765	888	837	773	671	787	758	732	674
24	729	647	806	750	887	869	854	762	826	793	783	719
25	647	596	818	806	921	888	749	726	857	824	788	761
26	660	645	875	815	923	893	729	660	875	860	797	753
27	671	657	873	828	914	824	779	701	896	820	816	774
28	681	611	899	840	875	603	839	788	824	794	879	819
29	642	539	909	879	603	519	885	839	830	803	938	881
30	657	585	876	782	633	543	918	786	842	797	953	927
31	---	---	779	744	---	---	788	773	811	794	---	---
MONTH	771	390	909	569	953	519	918	453	914	360	953	467
YEAR	1020	360										

03229600 SCIOTO RIVER BELOW SHADEVILLE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.5	7.5	7.0	7.9	7.8	8.2	7.9	7.9	7.5	7.9	7.9
2	7.8	7.5	7.3	7.2	7.9	7.8	7.9	7.6	7.8	7.5	8.0	7.9
3	7.8	7.7	7.5	7.2	8.0	7.8	7.7	7.5	7.8	7.7	7.9	7.8
4	7.7	7.4	8.1	7.6	8.0	7.9	7.7	7.4	7.8	7.6	7.9	7.6
5	7.4	7.4	7.6	7.5	8.1	7.8	7.5	7.2	8.0	7.8	7.9	7.7
6	7.7	7.4	7.6	7.4	7.9	7.8	7.8	7.5	8.1	8.0	8.0	7.7
7	7.5	7.4	7.6	7.4	8.0	7.5	7.8	7.5	8.1	8.0	7.9	7.6
8	7.6	7.4	7.7	7.4	7.9	7.8	7.9	7.4	8.1	7.9	8.0	7.9
9	7.6	7.5	7.6	7.3	7.9	7.7	7.7	7.4	8.1	7.8	8.0	7.6
10	7.6	7.4	7.6	7.4	7.8	7.7	7.9	7.5	8.0	7.9	7.9	7.7
11	7.5	7.4	7.5	7.4	7.8	7.7	7.9	7.8	7.9	7.8	7.8	7.6
12	7.4	7.4	7.6	7.3	7.9	7.8	7.8	7.7	7.9	7.5	7.7	7.6
13	7.4	7.3	7.6	7.2	7.9	7.8	7.7	7.7	7.7	7.6	7.6	7.4
14	7.4	7.3	7.5	7.3	8.0	7.9	7.8	7.5	7.8	7.6	7.6	7.4
15	7.4	7.3	7.8	7.3	8.0	7.8	7.6	7.5	7.8	7.6	7.8	7.5
16	7.5	7.3	7.9	7.5	8.0	7.8	7.7	7.6	7.8	7.7	7.8	7.6
17	7.6	7.4	7.8	7.6	8.2	7.8	7.8	7.7	7.8	7.6	7.9	7.7
18	7.6	7.4	7.8	7.5	8.1	7.9	7.8	7.6	7.8	7.7	7.9	7.6
19	7.7	7.5	7.9	7.5	8.1	7.8	7.8	7.6	7.7	7.6	7.8	7.6
20	7.7	7.4	8.0	7.8	7.8	7.5	7.7	7.6	7.8	7.6	7.9	7.8
21	8.0	7.5	7.9	7.7	8.1	7.7	7.6	7.3	7.9	7.7	8.0	7.9
22	7.9	7.5	8.0	7.8	7.9	7.7	7.6	7.4	7.8	7.7	8.1	7.9
23	7.6	7.5	8.1	7.8	7.8	7.3	7.7	7.5	7.7	7.5	8.1	8.0
24	7.6	7.4	8.0	7.9	7.9	7.6	7.6	7.5	7.6	7.4	8.2	8.0
25	7.4	7.2	8.1	7.9	7.8	7.6	7.7	7.5	8.1	7.6	8.1	8.1
26	7.3	7.2	7.9	7.5	7.8	7.6	7.7	7.4	8.1	7.9	8.1	7.9
27	7.3	7.2	7.9	7.4	7.8	7.5	7.8	7.6	8.0	7.7	8.0	7.8
28	7.3	7.2	7.8	7.6	8.1	7.6	7.9	7.6	7.9	7.7	7.9	7.6
29	7.4	7.2	7.9	7.7	8.2	7.9	7.7	7.6	---	---	7.9	7.7
30	7.3	7.1	7.9	7.8	8.2	8.0	7.8	7.6	---	---	7.8	7.7
31	7.1	7.0	---	---	8.2	8.0	7.8	7.6	---	---	8.1	7.8
MONTH	8.0	7.0	8.1	7.0	8.2	7.3	8.2	7.2	8.1	7.4	8.2	7.4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.8	8.4	8.1	8.1	7.9	7.5	7.3	7.8	7.5	7.8	7.5
2	8.0	7.6	8.1	7.9	8.1	7.7	7.6	7.3	8.0	7.7	7.6	7.4
3	7.9	7.7	8.0	7.9	7.8	7.6	7.5	7.3	7.8	7.6	7.8	7.5
4	7.7	7.5	7.9	7.8	7.6	7.5	7.6	7.4	7.8	7.5	7.8	7.5
5	7.9	7.6	8.0	7.9	7.6	7.4	7.7	7.5	7.6	7.4	7.8	7.7
6	8.0	7.9	8.1	8.0	7.8	7.5	7.6	7.5	7.5	7.4	7.7	7.5
7	8.0	7.7	8.1	8.0	7.7	7.7	7.5	7.4	8.0	7.2	7.7	7.6
8	8.0	7.9	8.1	8.0	7.7	7.7	7.4	7.3	7.7	7.4	7.7	7.5
9	8.1	7.9	8.2	8.1	8.3	7.5	7.4	7.3	7.6	7.4	7.6	7.5
10	8.1	8.0	8.1	7.9	7.8	7.6	7.4	7.3	7.5	7.3	7.8	7.6
11	8.0	7.9	8.0	7.8	7.6	7.5	7.7	7.3	7.6	7.4	7.8	7.8
12	8.0	7.9	8.0	7.9	7.6	7.5	7.8	7.5	7.7	7.5	7.9	7.8
13	8.0	7.8	7.9	7.9	7.6	7.5	7.7	7.5	7.6	7.6	7.8	7.7
14	8.0	7.9	8.1	7.9	7.6	7.5	7.6	7.5	7.7	7.5	7.9	7.6
15	8.0	7.9	8.4	8.0	7.6	7.5	7.5	7.3	7.6	7.4	7.9	7.7
16	8.0	7.8	8.4	8.1	7.7	7.5	7.4	7.3	7.6	7.4	7.7	7.6
17	7.9	7.8	8.3	8.0	7.5	7.4	7.4	7.2	7.7	7.4	7.7	7.6
18	7.8	7.7	8.1	7.8	7.9	7.4	7.6	7.3	7.9	7.5	7.7	7.6
19	7.7	7.6	8.1	7.8	7.6	7.3	7.5	7.3	7.9	7.8	7.8	7.6
20	7.7	7.5	7.9	7.7	7.5	7.3	7.5	7.3	8.0	7.8	7.8	7.8
21	7.7	7.6	7.8	7.6	7.5	7.4	7.5	7.3	8.0	7.8	7.9	7.8
22	7.7	7.6	7.9	7.6	7.6	7.4	7.5	7.3	8.1	7.5	7.8	7.7
23	7.8	7.6	8.1	7.8	7.6	7.5	7.6	7.4	8.1	7.9	7.8	7.7
24	7.8	7.5	8.0	7.8	7.6	7.4	7.6	7.4	8.1	7.9	7.8	7.6
25	8.0	7.6	7.9	7.6	7.6	7.4	7.7	7.4	8.2	7.9	7.8	7.7
26	8.1	8.0	7.9	7.7	7.6	7.5	7.8	7.6	8.3	7.9	7.8	7.7
27	8.3	8.0	7.9	7.5	7.6	7.5	7.9	7.7	8.3	7.8	7.8	7.8
28	8.2	8.1	7.9	7.8	7.7	7.3	7.9	7.6	8.5	7.7	7.9	7.8
29	8.1	8.0	8.0	7.8	7.5	7.2	7.8	7.5	8.2	7.7	7.9	7.9
30	8.2	8.0	8.0	7.9	7.5	7.1	7.7	7.5	7.8	7.6	7.9	7.8
31	---	---	7.9	7.8	---	---	7.7	7.6	7.8	7.6	---	---
MONTH	8.3	7.5	8.4	7.5	8.3	7.1	7.9	7.2	8.5	7.2	7.9	7.4
YEAR	8.5	7.0										

03229600 SCIOTO RIVER BELOW SHADEVILLE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	15.5	8.5	7.0	5.0	3.5	1.5	0.5	2.0	1.5	3.0	1.5
2	17.5	16.0	9.5	7.5	5.0	4.0	1.5	0.5	3.0	1.5	3.0	2.0
3	18.5	16.5	10.5	8.5	4.0	2.5	2.0	1.0	4.0	3.0	4.0	2.5
4	19.0	16.5	9.5	8.5	4.0	3.5	2.5	1.5	3.5	3.5	5.5	4.0
5	19.5	17.0	9.0	8.0	4.5	4.0	2.5	2.0	3.0	2.0	5.5	4.5
6	18.5	17.5	9.0	7.5	6.0	4.0	2.5	1.5	2.0	1.0	5.0	3.5
7	17.5	16.0	8.5	7.5	6.5	2.5	2.5	2.0	2.5	1.0	4.0	3.0
8	16.0	15.0	7.5	6.5	3.0	2.5	2.0	1.5	2.5	1.0	4.5	2.5
9	15.5	13.5	8.0	6.0	4.0	2.5	2.0	1.5	3.5	1.5	6.5	4.0
10	14.0	12.5	8.0	6.5	5.5	3.5	2.0	1.0	4.5	3.0	7.5	5.5
11	14.5	12.0	7.5	7.0	5.5	4.0	1.0	0.5	5.0	3.5	9.5	6.5
12	15.0	12.5	8.0	6.5	4.0	3.5	2.0	1.0	4.5	2.5	9.5	8.5
13	16.5	14.5	7.0	5.5	3.5	2.5	3.0	1.5	3.5	1.5	9.5	8.5
14	16.0	14.5	7.0	5.5	3.5	2.5	3.5	2.5	2.0	1.5	8.5	7.5
15	16.5	14.0	7.0	5.5	4.5	3.0	4.5	3.5	2.0	1.0	8.5	7.0
16	15.5	13.5	7.0	5.0	4.0	3.5	4.0	1.5	2.5	1.5	9.5	8.0
17	14.0	12.5	8.0	5.5	4.5	3.5	1.5	0.5	3.0	1.5	8.5	7.5
18	13.0	11.0	9.0	7.5	4.5	3.5	1.5	0.0	3.5	2.5	7.5	6.5
19	12.5	11.0	8.5	7.5	5.5	3.5	2.0	1.0	4.0	3.0	6.5	6.0
20	12.5	11.5	8.5	7.0	5.5	4.5	3.0	2.0	4.0	3.0	6.5	6.0
21	11.5	10.0	7.5	6.5	4.5	2.5	3.5	3.0	3.5	2.0	7.0	5.5
22	11.0	9.0	7.0	6.0	2.5	2.0	3.5	3.0	5.0	2.5	7.5	6.5
23	10.5	9.5	6.0	5.5	2.5	2.0	3.5	2.0	4.0	1.5	7.5	6.0
24	11.0	9.0	6.0	4.5	2.5	2.0	4.0	3.5	1.5	0.5	7.0	6.0
25	10.0	9.0	7.5	5.0	2.5	2.0	4.0	3.5	2.0	0.5	7.5	6.0
26	10.5	9.5	9.0	7.5	2.5	2.0	4.0	3.5	2.5	1.5	9.0	6.5
27	9.5	8.5	9.0	8.5	2.5	1.5	3.5	2.5	2.5	2.0	9.5	7.5
28	9.0	7.5	8.5	6.5	2.5	2.0	3.0	2.0	2.0	1.5	11.0	9.5
29	9.5	7.0	6.5	4.5	2.0	1.5	1.5	1.0	---	---	13.5	10.5
30	9.0	8.0	4.0	3.0	2.0	1.5	2.0	1.0	---	---	15.0	12.0
31	9.5	7.5	---	---	1.5	1.0	2.0	1.0	---	---	13.5	11.5
MONTH	19.5	7.0	10.5	3.0	6.5	1.0	4.5	0.0	5.0	0.5	15.0	1.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	10.5	17.0	14.0	25.5	23.0	25.0	23.5	27.0	24.5	29.0	25.5
2	13.0	11.5	18.0	16.5	24.0	22.0	25.5	23.0	27.0	23.5	28.0	26.5
3	12.5	11.5	18.5	17.0	24.0	20.5	26.0	23.5	27.5	23.5	26.5	24.5
4	11.0	10.0	19.0	17.5	25.0	20.5	26.5	24.5	28.0	24.5	26.0	24.0
5	11.0	9.0	19.0	18.0	23.5	22.0	28.5	25.5	28.5	25.5	27.0	24.5
6	9.0	8.0	19.0	18.0	23.5	21.5	30.0	26.5	29.0	26.0	25.5	25.0
7	10.0	8.0	19.0	18.0	21.0	19.5	30.5	28.0	27.5	26.0	26.0	23.5
8	10.5	8.5	19.5	17.5	20.0	18.5	30.0	27.5	25.5	24.0	23.5	21.5
9	10.0	8.5	17.5	16.0	19.0	17.5	30.0	28.5	26.0	24.0	25.5	19.0
10	11.5	9.5	17.5	15.0	20.5	17.0	28.5	26.5	26.0	24.5	25.0	23.0
11	13.5	11.0	18.0	15.0	20.0	19.5	27.5	25.0	26.0	24.5	23.5	21.5
12	14.0	12.0	19.0	16.0	22.0	19.0	27.5	26.0	25.5	24.0	22.5	20.5
13	14.5	12.5	21.0	17.0	23.0	20.5	28.5	25.5	24.5	23.5	22.5	21.0
14	15.0	13.5	21.5	19.0	23.5	22.0	30.0	26.0	26.0	23.5	22.5	21.0
15	16.5	13.5	22.0	19.0	25.0	21.5	29.5	27.0	27.0	24.5	21.5	20.5
16	17.5	15.0	22.5	19.5	26.5	22.5	30.0	27.0	27.5	25.0	21.5	21.0
17	17.5	16.0	23.5	21.0	27.5	24.0	29.5	27.0	27.0	25.5	22.0	20.5
18	18.5	16.0	25.0	22.0	27.0	24.5	30.5	27.5	26.0	23.5	23.0	21.0
19	18.5	17.0	26.0	22.5	25.5	23.5	31.0	27.5	25.0	22.0	22.5	22.0
20	20.0	17.5	26.5	23.0	26.0	23.5	31.0	28.0	25.0	22.0	22.0	20.5
21	20.0	19.0	27.0	23.5	25.5	22.5	29.0	27.5	24.0	22.5	20.5	19.0
22	20.0	19.0	26.5	23.5	24.0	22.0	29.0	26.0	24.5	22.0	21.0	18.5
23	19.5	18.5	26.0	23.5	24.0	20.5	28.0	25.0	25.0	22.5	22.0	20.0
24	18.5	16.5	26.0	23.5	24.5	22.5	27.5	25.0	24.5	23.5	21.5	21.0
25	16.0	14.5	25.5	24.0	26.5	23.0	28.5	26.5	24.0	21.0	22.0	20.0
26	15.0	14.0	26.0	22.5	28.0	24.0	27.0	25.0	25.0	21.5	23.0	21.0
27	16.0	13.0	26.5	22.5	26.5	24.5	26.5	23.5	27.0	24.0	22.0	20.5
28	15.5	13.5	26.5	23.5	25.5	24.5	27.0	23.5	28.0	25.0	21.0	19.5
29	14.5	12.0	26.0	23.5	26.0	24.0	26.0	25.0	27.0	25.5	21.0	18.5
30	16.0	12.5	26.5	23.0	25.5	23.5	26.5	24.0	26.5	25.0	21.5	19.0
31	---	---	26.5	23.5	---	---	27.5	24.5	28.0	25.0	---	---
MONTH	20.0	8.0	27.0	14.0	28.0	17.0	31.0	23.0	29.0	21.0	29.0	18.5
YEAR	31.0	0.0										

03229600 SCIOTO RIVER BELOW SHADEVILLE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.5	4.1	8.4	7.7	10.5	9.5	11.6	9.9	10.6	10.0	12.9	12.6
2	6.8	4.2	8.8	8.1	9.9	8.9	11.5	10.3	10.2	9.6	12.9	12.6
3	6.0	4.4	8.7	8.2	10.7	9.1	11.0	10.3	10.1	9.5	12.7	12.1
4	6.2	4.4	9.1	8.0	10.7	9.3	11.1	9.9	10.1	9.2	12.0	11.2
5	6.2	5.1	9.4	8.5	10.8	8.4	11.0	9.7	10.7	9.6	11.8	11.1
6	5.4	3.5	9.7	8.9	10.3	9.1	10.8	9.7	11.1	10.5	12.5	11.8
7	5.4	3.4	10.0	9.1	8.2	7.7	11.0	9.6	11.5	10.7	12.6	12.3
8	7.1	4.3	10.5	9.3	10.3	9.4	11.1	9.7	11.7	10.7	---	---
9	7.6	5.9	10.6	9.7	10.1	9.0	10.9	9.8	11.7	10.8	---	---
10	7.9	6.8	9.8	8.9	9.7	8.7	11.1	9.6	11.5	10.7	---	---
11	7.9	7.2	9.6	8.6	10.0	8.1	10.8	9.9	11.3	9.8	11.8	10.6
12	8.0	7.1	10.3	8.7	10.3	9.3	10.4	9.4	10.3	9.1	10.6	9.6
13	7.9	6.8	10.6	9.0	11.6	9.6	10.1	9.0	10.2	9.0	9.9	8.8
14	7.9	6.4	10.7	8.9	11.5	10.3	9.7	8.8	10.4	10.2	10.7	10.0
15	8.2	6.6	11.2	9.4	12.0	10.3	9.3	8.2	10.6	10.4	11.2	10.8
16	8.5	6.8	11.2	9.4	11.0	9.9	9.5	8.4	10.5	10.2	10.9	10.5
17	8.8	6.7	11.1	9.3	11.7	9.6	9.4	8.7	10.5	9.9	10.5	9.7
18	9.0	6.8	10.7	8.5	11.8	9.9	9.3	7.6	10.5	9.9	9.9	9.5
19	9.4	7.4	11.3	8.6	12.0	9.8	8.9	8.2	10.7	9.7	10.3	9.8
20	8.2	5.9	11.3	8.7	10.6	9.6	8.9	8.3	11.0	9.9	10.4	10.3
21	9.0	6.6	10.8	8.8	11.5	9.3	8.7	8.0	11.3	10.1	10.9	10.4
22	8.2	7.0	11.0	9.1	12.0	9.7	8.6	7.9	11.0	10.0	10.8	10.2
23	7.7	7.0	11.6	9.3	11.9	10.3	8.9	8.0	10.7	9.9	10.7	10.4
24	8.4	5.7	10.9	9.3	11.8	9.8	8.8	7.9	11.4	10.8	11.3	10.7
25	8.3	7.6	11.3	9.6	10.7	10.2	8.8	7.7	12.2	11.0	11.3	10.8
26	8.1	7.6	10.2	8.8	11.4	9.7	8.9	7.7	12.4	12.2	11.0	10.5
27	8.4	7.5	10.4	7.8	11.7	9.9	8.8	8.0	12.5	12.3	10.6	10.0
28	9.0	7.6	8.8	8.0	11.3	10.3	8.6	8.0	13.0	12.6	9.9	9.2
29	8.5	7.7	10.3	8.1	11.6	9.8	8.7	8.2	---	---	9.8	8.8
30	8.5	7.4	10.8	9.0	11.5	9.9	8.9	8.6	---	---	10.0	8.5
31	8.7	6.3	---	---	11.6	10.2	10.6	6.6	---	---	10.3	8.9
MONTH	9.4	3.4	11.6	7.7	12.0	7.7	11.6	7.6	13.0	9.0	12.9	8.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.9	9.2	10.0	7.8	7.9	3.5	5.7	2.7	6.2	3.7	9.5	4.7
2	9.7	8.1	8.4	7.2	7.5	4.4	5.4	4.5	8.9	4.9	7.1	4.4
3	10.4	8.3	8.0	6.5	7.4	4.7	5.5	4.1	7.5	4.7	5.2	3.8
4	10.1	9.7	7.2	6.0	6.9	5.0	6.5	4.6	7.0	4.5	6.8	4.4
5	10.1	9.3	8.3	6.8	5.7	3.5	7.3	4.5	6.2	4.2	7.0	4.4
6	10.4	10.1	8.2	7.9	6.3	3.5	8.0	4.9	5.5	3.6	5.6	3.8
7	10.5	10.1	8.3	7.9	6.4	3.8	7.1	4.1	4.8	2.1	6.1	4.7
8	10.7	9.9	8.4	7.8	6.1	4.3	6.4	3.4	4.7	3.1	6.0	4.4
9	10.8	10.1	8.6	7.9	7.2	3.0	6.5	3.5	5.0	4.0	5.6	4.5
10	10.9	10.5	8.4	7.7	6.8	6.0	5.9	3.4	4.7	3.8	5.6	4.3
11	10.5	10.1	8.0	6.7	5.8	5.1	7.4	3.6	5.0	3.5	5.8	4.6
12	10.2	9.9	8.3	6.2	5.9	4.6	7.9	4.5	4.7	3.1	6.1	4.8
13	10.1	9.3	8.4	5.8	6.4	4.3	8.3	4.1	5.0	4.2	6.1	4.8
14	9.7	9.0	8.8	5.3	6.0	4.0	8.0	3.9	5.0	4.4	5.8	3.9
15	9.3	8.2	10.3	5.3	6.4	3.7	7.0	2.7	5.3	4.4	6.2	4.9
16	8.2	7.3	10.8	5.7	8.1	3.8	5.4	2.9	5.3	4.2	6.0	4.5
17	7.8	7.0	11.7	5.4	7.3	3.6	5.9	2.6	5.5	4.0	5.7	5.3
18	7.7	6.5	10.5	4.6	7.3	2.9	7.5	3.9	6.1	4.3	5.5	5.0
19	7.1	5.8	9.4	2.7	---	---	7.5	4.1	6.8	4.6	5.7	4.7
20	7.3	5.5	7.8	3.8	---	---	7.3	2.8	7.7	4.7	---	---
21	6.9	5.0	5.7	3.6	---	---	6.2	2.8	7.0	5.0	---	---
22	6.1	4.1	5.7	3.3	4.9	4.2	6.4	3.1	8.0	4.3	---	---
23	5.7	4.0	6.4	2.8	6.3	3.6	5.6	3.6	8.6	5.0	5.9	4.8
24	6.5	5.0	6.4	2.8	6.4	4.2	6.6	3.5	8.1	5.2	5.2	4.4
25	8.0	5.9	5.7	2.9	6.3	3.7	7.5	3.7	9.9	5.1	5.9	4.5
26	8.9	7.4	7.0	2.9	6.9	3.4	6.7	4.3	11.0	6.0	6.0	4.6
27	10.0	7.8	7.9	3.8	7.1	3.4	8.1	4.2	12.2	5.5	6.0	4.8
28	8.6	7.5	8.0	3.7	5.6	2.2	7.7	4.3	13.4	6.1	6.1	4.8
29	8.8	7.8	6.8	3.5	4.6	3.8	5.8	3.9	10.6	5.6	6.2	4.7
30	9.5	8.0	6.6	2.9	5.0	3.9	5.9	2.9	8.2	4.8	6.0	4.7
31	---	---	6.9	2.7	---	---	5.9	3.9	8.6	4.5	---	---
MONTH	10.9	4.0	11.7	2.7	8.1	2.2	8.3	2.6	13.4	2.1	9.5	3.8
YEAR	13.4	2.1										

03230500 BIG DARBY CREEK AT DARBYVILLE, OH

LOCATION.--Lat 39°42'03", long 83°06'35", Pickaway County, Hydrologic Unit 05060001, near right bank on downstream side of pier of bridge on State Highway 316, 0.4 mi (0.6 km) northeast of Darbyville, 0.4 mi (0.6 km) upstream from Lizzard Run, and 3 mi (5 km) downstream from Greenbrier Creek.

DRAINAGE AREA.--534 mi² (1,383 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to December 1935, January 1938 to current year. Prior to October 1959, published as Darby Creek at Darbyville.

REVISED RECORDS.--WSP 1083: 1922(M), 1924(M), 1927(M), 1933(M), 1938(M). WSP 1305: 1928-31(M), 1934(M), 1945(M). WSP 1505: 1932(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 713.69 ft (217.533 m) above mean sea level. Prior to Mar. 17, 1940 nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter periods and no gage height record, which are poor.

AVERAGE DISCHARGE.--53 years, 439 ft³/s (12.43 m³/s), 11.16 in/yr (283 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 ft³/s (1,390 m³/s) Jan. 22, 1959, gage height, 17.94 ft (5.468 m) from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of contracted-opening measurement of peak flow; minimum observed, 1.4 ft³/s (0.040 m³/s) Sept. 17, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,500 ft³/s (127 m³/s) and maximums (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Feb. 25	0600	5120	145	9.70	2.957	Apr. 4	1130	*6920	196	*10.90	3.322

Minimum discharge, 31 ft³/s (0.88 m³/s) Sept. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	271	77	40	33	612	397	416	60	155	38	32
2	83	267	72	40	33	478	695	350	58	210	38	32
3	77	224	68	39	33	406	3040	341	50	300	37	41
4	71	196	69	39	33	659	6130	371	102	200	41	55
5	65	172	61	39	33	1440	3040	868	68	145	39	42
6	63	152	66	38	33	1210	2290	1050	60	125	36	36
7	61	137	72	38	33	785	1420	728	54	110	35	36
8	60	126	64	38	33	608	1040	548	540	103	38	35
9	62	117	55	38	33	506	824	442	340	95	61	33
10	65	114	53	38	33	448	687	359	240	98	62	32
11	73	111	52	37	33	409	600	306	180	90	55	31
12	78	105	51	37	60	455	520	258	150	87	100	31
13	77	98	50	37	171	1680	458	237	120	80	106	31
14	72	92	48	37	330	1820	413	222	92	71	84	31
15	70	88	48	37	429	1060	368	206	78	71	70	33
16	66	87	47	37	500	781	335	188	70	62	54	48
17	62	86	47	37	200	600	306	175	76	60	48	70
18	59	84	46	37	110	816	287	164	85	54	45	59
19	57	83	46	37	70	1660	252	148	72	77	42	53
20	58	82	45	37	66	1220	263	144	68	86	41	67
21	62	81	44	37	64	892	237	136	68	95	40	65
22	67	78	43	37	110	884	230	125	70	106	40	61
23	67	77	43	37	600	1060	237	122	65	69	38	55
24	83	75	42	36	1990	900	252	199	60	54	39	49
25	208	72	42	36	3630	675	273	100	64	50	37	44
26	288	73	42	35	1750	559	263	80	170	45	34	40
27	240	79	41	35	1090	485	252	64	370	42	34	38
28	189	82	41	35	785	485	255	90	160	39	33	35
29	156	85	41	35	---	516	378	94	110	39	33	33
30	140	81	41	34	---	541	478	78	265	39	33	33
31	169	---	40	34	---	475	---	70	---	39	32	---
TOTAL	3035	3475	1597	1148	12318	25125	26220	8679	3965	2896	1463	1281
MEAN	97.9	116	51.5	37.0	440	810	874	280	132	93.4	47.2	42.7
MAX	288	271	77	40	3630	1820	6130	1050	540	300	106	70
MIN	57	72	40	34	33	406	230	64	50	39	32	31
CFSM	.18	.22	.10	.07	.82	1.52	1.64	.52	.25	.18	.09	.08
IN.	.21	.24	.11	.08	.86	1.75	1.83	.60	.28	.20	.10	.09

CAL YR 1976 TOTAL 124804 MEAN 341 MAX 5810 MIN 40 CFSM .64 IN 8.69
WTR YR 1977 TOTAL 91202 MEAN 250 MAX 6130 MIN 31 CFSM .47 IN 6.35

Note: No gage height record May 24 to July 8.

03230500 BIG DARBY CREEK AT DARBYVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD Of record.--Water year 1964 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1015	1220	670	8.2	5.5	11.4	90	.4	330	130	79	33
JUL 08...	1115	105	700	8.2	27.0	6.8	84	2.3	330	77	78	32

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	12	2.1	253	0	208	2.6	60	33	.3	5.7	350	5.4
JUL 08...	14	2.6	304	0	249	3.1	50	30	.4	9.8	375	5.6

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.02	.01	.08	1	60	0	20	1200	10	.4	100	5.2
JUL 08...	.02	.04	.15	3	20	36	10	15	10	.0	40	4.3

03230700 SCIOTO RIVER AT CIRCLEVILLE, OH

LOCATION.--Lat 39°36'05", long 82°57'19", in SW 1/4 sec. 19, T.11 N., R.21 W., Pickaway County, Hydrologic Unit 05060002, on right bank 100 ft (30.5 m) upstream from U.S. Highway 22 bridge, 1,400 ft (427 m) downstream from Hargus Creek, and 1.0 mi (1.5 km) downstream from Big Darby Creek.

DRAINAGE AREA.--3,217 mi² (8,332 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year. Gage height records collected in this vicinity since September 1915, are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 643.03 ft (195.996 m) above mean sea level.

REMARKS.--Records good except Oct. 1 to Feb. 22, which are fair. Flow regulated by 5 reservoirs 38 mi (61 km) to 62 mi (100 km) upstream from station (see Station No. 03220500, 03221500, 03225500, 03228400, and 03228805).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,500 ft³/s (1,740 m³/s) Feb. 25, 1975, gage height, 21.95 ft (6.690 m); minimum daily, 290 ft³/s (8.21 m³/s) Feb. 6-9, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913 reached a stage of 28.2 ft (8.60 m), from information supplied by National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,300 ft³/s (603 m³/s) Apr. 4, gage height, 15.80 ft (4.816 m); minimum daily, 290 ft³/s (8.21 m³/s) Feb. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	850	1750	570	430	300	5700	3250	2530	617	1560	506	383
2	620	1400	480	410	300	4420	3850	2240	554	1980	388	358
3	670	1050	380	400	300	3330	13400	2260	501	1370	354	964
4	760	890	350	390	300	3860	20300	2660	476	1520	351	1250
5	740	930	330	380	300	5800	18200	4710	502	1350	345	534
6	720	910	310	370	290	5830	14100	6600	551	1180	339	983
7	670	900	730	360	290	5090	8070	6780	451	764	369	1010
8	660	870	850	350	290	4260	5390	5960	446	896	2360	557
9	870	780	570	340	290	3350	5460	3720	1520	903	1240	438
10	780	710	710	330	300	2720	6380	2900	2310	723	789	381
11	570	690	670	325	320	2390	5960	2220	1680	577	624	347
12	530	670	650	320	500	2410	5840	1770	1190	758	1300	331
13	480	680	640	310	900	9520	5200	1600	1100	643	1200	348
14	435	770	640	305	1600	9850	3520	1440	901	544	909	727
15	400	760	630	300	1450	6780	3030	1320	809	493	827	1160
16	450	720	620	300	1300	5270	2510	1200	651	442	632	1160
17	540	700	620	300	1200	3820	2250	1120	549	492	566	1960
18	740	670	620	300	1100	4600	1980	999	562	840	523	1140
19	500	610	620	300	1000	8550	1830	916	772	632	496	916
20	650	590	630	300	960	7530	1680	826	581	512	426	1170
21	740	650	640	310	900	7080	1530	756	494	543	394	866
22	450	710	630	310	890	6530	1430	713	452	948	515	720
23	420	600	620	315	3330	6130	1580	792	424	797	586	713
24	940	570	600	320	7000	5740	1860	885	426	550	518	615
25	1400	520	590	325	10100	5230	2490	863	417	674	478	537
26	1100	640	570	320	9980	4220	2430	727	416	764	412	488
27	800	730	540	[illegible]	9030	3130	2320	628	387	616	413	438
28	780	760	520	320	7510	2930	2310	576	1560	488	412	405
29	650	660	500	320	---	3170	3500	562	2360	434	361	371
30	640	580	480	310	---	3420	3050	635	1420	492	390	351
31	920	---	450	[illegible]	---	3820	---	570	---	440	451	---
TOTAL	21395	23470	17760	10295	62030	156560	154700	61478	25079	24925	19474	21621
MEAN	690	782	573	332	2215	5050	5157	1983	836	804	628	721
MAX	1400	1750	850	430	10100	9850	20300	6780	2360	1980	2360	1960
MIN	400	520	310	300	290	2390	1430	562	387	434	339	331

CAL YR 1976 TOTAL 845573 MEAN 2310 MAX 35200 MIN 310
WTR YR 1977 TOTAL 598787 MEAN 1641 MAX 20300 MIN 290

03230700 SCIOTO RIVER AT CIRCLEVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 02...	1400	4320	560	7.9	3.0	12.1	90	5.5	240	99	61	22
JUL 27...	1200	597	745	7.5	24.0	4.0	47	4.7	260	110	66	24

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 02...	20	4.6	176	0	144	3.5	66	40	.3	5.6	306	2.9
JUL 27...	38	5.6	187	0	153	9.5	120	51	.5	5.4	403	2.4

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 02...	.06	.82	.39	2	20	13	70	14	40	.0	30	4.5
JUL 27...	.35	.80	1.1	2	10	11	40	9	40	.0	70	6.2

03230000 DEER CREEK AT MOUNT STERLING, OH

LOCATION.--39°42'54", long 83°15'26", Madison County, Hydrologic Unit 05060002, on left bank at downstream side of bridge on State Highway 56, 0.2 mi (0.3 km) downstream from unnamed right bank tributary, 0.6 mi (1.0 km) southeast of Mount Sterling, and 4.9 mi (7.9 km) upstream from Duffs Fork.

DRAINAGE AREA.--228 mi^2 (591 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WRD OH-75-1: 1968(M).

GAGE.--Water-stage recorder. Datum of gage is 836.25 ft (254.889 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--11 years, 221 ft^3/s (6.26 m^3/s), 13.17 in/yr (335 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft^3/s (329 m^3/s) May 24,1968, gage height, 11.87 ft (3.618 m); minimum, 5.1 ft^3/s (0.14 m^3/s) Nov. 24, 1970, July 28, 29, and Aug. 6, 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft^3/s (48.1 m^3/s) Feb. 24, gage height, 7.20 ft (2.195 m), no peak above base of 1,900 ft^3/s (53.8 m^3/s); minimum, 5.1 ft^3/s (0.144 m^3/s) July 28, 29 and Aug. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	86	21	10	10	270	129	141	30	30	18	8.8
2	23	76	19	10	10	217	416	127	27	35	12	8.8
3	19	112	18	10	10	195	1120	127	26	24	8.1	36
4	17	105	17	10	10	592	675	146	25	17	6.9	28
5	17	95	17	10	10	664	905	179	23	14	7.2	18
6	19	84	20	10	10	422	704	175	23	12	5.9	13
7	20	76	33	10	10	318	431	169	27	11	6.0	10
8	23	70	26	10	10	253	325	141	26	12	11	9.2
9	23	62	22	10	10	220	247	119	27	11	24	8.9
10	23	61	20	10	11	192	214	103	27	11	35	7.7
11	23	55	19	10	13	164	183	89	23	10	23	7.4
12	21	51	18	10	17	210	161	80	22	9.6	24	6.5
13	21	46	17	10	25	884	144	74	22	9.0	36	6.7
14	20	42	16	10	70	552	136	69	28	9.0	31	9.0
15	20	41	15	10	64	368	121	64	26	8.1	22	15
16	19	40	14	10	56	261	108	56	22	9.0	18	23
17	19	38	14	10	52	198	103	53	19	15	15	36
18	18	37	13	10	47	389	100	50	18	18	15	28
19	19	37	13	10	42	480	93	48	22	10	13	21
20	21	36	12	10	39	349	86	46	24	8.3	11	18
21	28	33	12	10	26	289	82	43	20	9.7	10	24
22	30	32	12	10	50	366	80	40	19	17	11	21
23	24	30	11	10	88	391	88	43	17	18	11	18
24	38	27	11	10	1510	292	98	63	17	11	14	16
25	100	28	11	10	1220	225	114	47	16	9.3	14	14
26	91	31	11	10	692	189	105	41	15	6.5	14	14
27	62	33	11	10	407	166	91	37	17	5.5	10	11
28	49	33	11	10	341	185	93	34	45	5.4	9.2	10
29	44	31	11	10	---	198	217	35	37	5.9	8.2	11
30	44	23	11	10	---	175	175	35	28	15	8.5	11
31	68	---	11	10	---	150	---	33	---	14	8.7	---
TOTAL	988	1551	487	310	4932	9824	7544	2507	718	400.3	460.7	469.0
MEAN	31.9	51.7	15.7	10.0	176	317	251	80.9	23.9	12.9	14.9	15.6
MAX	100	112	33	10	1510	884	1120	179	45	35	36	36
MIN	17	23	11	10	10	150	80	33	15	5.4	5.9	6.5
CFSM	.14	.23	.07	.04	.77	1.39	1.10	.36	.11	.06	.07	.07
IN.	.16	.25	.08	.05	.80	1.60	1.23	.41	.12	.07	.08	.08

CAL YR 1976 TOTAL 54628.0 MEAN 149 MAX 3320 MIN 11 CFSM .65 IN 8.91
WTR YR 1977 TOTAL 30191.0 MEAN 82.7 MAX 1510 MIN 5.4 CFSM .36 IN 4.93

03230000 DEER CREEK AT MOUNT STERLING, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1967 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 14...	1500	484	623	8.1	8.0	10.8	91	1.0	300	90	70	31
JUL 19...	1030	12	650	8.3	27.0	8.2	100	4.2	290	56	54	38

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	10	1.9	259	0	212	3.3	50	29	.3	6.8	327	6.4
JUL 19...	21	3.2	283	2	235	2.3	61	33	.5	5.9	358	.15

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.04	.07	.10	2	10	9	10	8	20	.0	20	11
JUL 19...	.02	.15	.30	3	10	4	10	2	0	.0	10	4.7

03230900 DEER CREEK NEAR PANCOASTBURG, OH

LOCATION.--Lat 39°37'14", long 83°12'47", Pickaway County, Hydrologic Unit 05060002, on left bank 200 ft (61 m) downstream from bridge on Crownover Mill Road, 1,200 ft (366 m) downstream from Deer Creek Dam, and 2.8 mi (4.5 km) east of Pancoastburg.

DRAINAGE AREA.--277 mi² (717 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1964-66 (Occasional low-flow measurements and annual maximums), July 1966 to current year.

REVISED RECORDS.--WRD Ohio 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) above mean sea level (Corps of Engineers bench mark). Oct. 23, 1963, to June 30, 1966, crest-stage gage at site 200 ft (61 m) upstream at datum 59.84 ft (18.239 m) higher.

REMARKS.--Records good. Flow regulated by Deer Creek Lake (see station 03230890).

AVERAGE DISCHARGE.--11 years 253 ft³/s (7.165 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s (552 m³/s) (estimated) Mar. 10, 1964, gage height, 80.93 ft (24.667 m), present datum; no flow May 25-27, 1968, result of dam closure.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Feb. 26, gage height, 72.15 ft (21.991 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Mar. 31, Apr. 1, June 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	69	60	24	17	416	8.0	141	15	10	26	12
2	[illegible]	71	30	22	17	291	9.4	138	15	10	46	13
3	175	71	23	21	17	286	8.7	141	15	10	46	13
4	210	184	20	21	17	491	9.4	181	15	10	46	13
5	274	318	19	21	17	717	9.4	197	14	9.9	46	12
6	274	334	19	21	17	509	9.4	200	13	9.8	45	12
7	270	326	19	21	17	434	9.4	197	13	11	41	13
8	266	322	19	22	17	282	9.4	200	13	14	17	13
9	187	322	19	22	17	217	9.4	200	11	14	11	13
10	101	318	19	22	17	217	9.4	197	11	14	11	12
11	99	318	19	22	17	217	10	178	11	14	15	12
12	84	314	19	22	17	217	25	120	11	14	26	40
13	63	310	19	22	17	561	71	92	11	13	32	64
14	64	306	19	22	17	771	130	92	13	14	64	65
15	66	149	21	22	25	585	149	78	11	14	98	65
16	66	61	40	22	110	443	143	61	11	14	90	89
17	67	64	50	22	95	342	136	60	11	14	50	92
18	67	64	52	22	80	295	143	53	13	13	26	93
19	69	64	54	22	48	500	149	41	11	13	20	437
20	69	64	53	22	58	580	136	42	11	13	13	552
21	67	64	52	20	49	416	101	42	11	14	9.9	490
22	69	64	50	19	40	342	92	43	11	13	9.7	484
23	69	67	40	18	40	416	94	43	11	13	9.9	441
24	69	69	25	18	518	160	94	43	11	13	10	415
25	69	69	20	17	793	20	94	44	11	14	10	383
26	69	71	18	17	1070	21	94	43	11	14	10	367
27	69	69	18	17	1200	21	94	31	11	13	10	372
28	69	69	21	17	869	21	94	18	11	13	11	372
29	69	74	31	17	---	21	94	18	8.0	13	11	280
30	69	80	31	17	---	15	128	17	10	13	11	237
31	69	---	28	17	---	8.0	---	15	---	14	12	---
TOTAL	3578	4737	927	631	5253	9832.0	2162.9	2966	355.0	395.7	875.5	5476
MEAN	115	158	29.9	20.4	188	317	72.1	95.7	11.8	12.8	28.2	183
MAX	274	334	60	24	1200	771	149	200	15	14	90	552
MIN	63	61	18	17	17	8.0	8.0	15	8.0	9.8	9.7	12

CAL YR 1976 TOTAL 59989.2 MEAN 164 MAX 1930 MIN 6.8
WTR YR 1977 TOTAL 37189.1 MEAN 102 MAX 1200 MIN 8.0

03230900 DEER CREEK NEAR PANCOASTBURG, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PER-CENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 14...	1300	771	540	8.1	9.0	11.7	101	1.5	270	72	62	27
JUN 30...	1045	8.9	590	7.8	20.5	5.8	64	2.0	260	50	50	34

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 14...	10	2.3	236	0	194	3.0	48	26	.3	5.3	297	4.4
JUN 30...	11	2.0	262	0	215	6.6	51	27	.4	2.0	307	1.1

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 14...	.03	.17	.13	3	10	7	10	8	10	.0	30	9.8
JUN 30...	.03	.28	.04	2	<10	3	10	7	100	.0	20	9.5

03231000 DEER CREEK AT WILLIAMSPORT, OH

LOCATION.--Lat 39°35'09", long 83°07'22", Pickaway County, Hydrologic Unit 05060002, on left bank at downstream side of bridge on U.S. Highway 22 at west edge of Williamsport, 2.0 mi (3.2 km) downstream from Dry Run, and 7.6 mi (12.2 km) upstream from Hay Run.

DRAINAGE AREA.--333 mi² (862 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1926 to December 1935, January 1938 to September 1956, water years 1959, 1961-62, annual maximum. July 1962 to current year.

REVISED RECORDS.--WSP 1083: 1929. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 718.66 ft (219.048 m) above mean sea level. Prior to Feb. 29, 1940, nonrecording gage, and Feb. 29, 1940, to Aug. 24, 1954, water-stage recorder, same site at datum 3.00 ft (0.914 m) higher. Aug. 24, 1954 to Sept. 30, 1956, nonrecording gage at same site and datum. Oct. 1, 1958, to June 1962, crest-stage gage at site 120 ft (37 m) downstream at same datum.

REMARKS.--Records good except those for period of missing record, which are poor. Flow regulated by Deer Creek Lake 9.0 mi (14.5 km) upstream beginning in 1968.

AVERAGE DISCHARGE.--42 years (1926-35, 1938-56, 1962-77), 290 ft³/s (8.213 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,600 ft³/s (1,120 m³/s) Jan. 22, 1959, gage height, 17.6 ft (5.36 m) (from floodmarks), from rating curve extended above 25,000 ft³/s (708 m³/s) on basis of contracted-opening measurement of peak flow; minimum daily, 1.8 ft³/s (0.051 m³/s) July 25, 1934, Oct. 1-4, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft³/s (40.8 m³/s) Feb. 26, gage height, 6.71 ft (2.045 m); minimum daily, 12 ft³/s (0.34 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	78	72	29	19	624	34	146	27	18	144	15
2	176	78	36	26	19	356	130	154	22	18	74	15
3	176	78	29	24	19	353	203	158	20	16	65	17
4	193	132	26	22	19	686	128	213	18	16	62	16
5	304	314	24	22	19	979	234	256	18	16	58	16
6	308	354	23	22	19	743	139	261	18	14	58	15
7	302	352	23	22	19	546	101	261	16	16	58	14
8	299	348	23	22	19	403	77	254	16	18	39	14
9	243	347	23	22	19	283	61	244	19	18	26	13
10	117	345	23	22	19	275	55	231	18	18	22	13
11	112	339	23	22	19	264	49	220	18	20	20	12
12	107	339	23	22	19	299	47	162	18	24	29	19
13	71	335	23	22	19	987	82	115	18	22	47	76
14	71	331	23	22	20	1030	146	113	23	20	133	85
15	72	214	25	22	24	864	101	106	22	18	160	85
16	72	68	44	22	90	572	179	77	18	19	139	112
17	70	71	59	22	130	458	170	75	18	22	105	128
18	70	71	62	22	95	542	166	72	18	17	44	122
19	71	72	64	22	80	677	170	52	28	16	28	453
20	74	71	64	21	67	803	166	51	19	16	25	785
21	72	72	63	21	57	604	132	50	18	183	19	668
22	71	74	62	20	50	468	115	49	16	351	18	664
23	72	75	50	20	48	505	115	48	16	58	17	625
24	78	76	31	20	400	323	117	47	16	33	17	571
25	77	77	25	19	900	78	113	47	16	35	16	545
26	76	78	22	19	1210	60	111	46	16	29	15	517
27	73	78	22	19	1390	56	108	43	16	22	16	513
28	72	80	24	19	1120	61	111	23	18	19	15	515
29	72	83	38	19	---	65	113	19	18	18	15	418
30	74	93	37	19	---	55	128	22	14	19	15	320
31	78	---	33	19	---	40	---	21	---	24	15	---
TOTAL	3897	5123	1119	666	5928	14051	3681	3636	556	1153	1514	7381
MEAN	126	171	36.1	21.5	212	453	123	117	18.5	37.2	48.8	246
MAX	308	354	72	29	1390	1030	234	261	28	351	160	785
MIN	70	68	22	19	19	40	34	19	14	14	15	12

CAL YR 1976 TOTAL 77291 MEAN 211 MAX 2230 MIN 10
WTR YR 1977 TOTAL 48705 MEAN 133 MAX 1390 MIN 12

Note: No gage height record Nov. 18 to Jan. 20.

03231000 DEER CREEK AT WILLIAMSPORT, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
16...	1645	558	585	8.2	11.0	11.2	101	1.4	280	79	66	29
JUN												
30...	1345	14	685	8.0	23.5	7.6	88	4.2	300	68	65	33

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
16...	9.2	2.1	250	0	205	2.5	50	26	.3	6.0	312	5.4
JUN												
30...	12	2.3	281	0	230	4.5	64	27	.4	5.7	348	.76

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
16...	.04	.07	.10	2	10	6	10	7	20	.0	50	9.7
JUN												
30...	.01	.14	.13	2	<10	7	30	3	10	.0	20	3.1

03231500 SCIOTO RIVER AT CHILLICOTHE, OH

LOCATION.--Lat 39°20'29", long 82°58'16", Ross County, Hydrologic Unit 05060002, on right bank at north end of Chillicothe, 1,400 ft (427 m) downstream from Bridge Street bridge, 7.4 mi (11.9 km) upstream from Paint Creek, and 15.4 mi (24.8 km) downstream from Deer Creek.

DRAINAGE AREA.--3,849 mi^2 (9,969 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1913 to September 1914 (gage heights and discharge measurements only), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected in this vicinity since 1907 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 803: 1929(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 594.05 ft (181.066 m) above mean sea level. Prior to Sept. 30, 1914, nonrecording gage at site 1,300 ft (396 m) upstream at different datum. Apr. 1, 1921, to Aug. 6, 1930, nonrecording gage, at site 1,400 ft (427 m) upstream at present datum. Aug. 7, 1930, to Sept. 30, 1969, water stage recorder 900 ft (274 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by 6 reservoirs 36 mi (58 km) to 91 mi (146 km) upstream from station (see stations 0322050C, 03221500, 03225000, 03228400, 03228850, 03230890).

AVERAGE DISCHARGE.--57 years, 3,353 ft^3/s (94.96 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 144,000 ft^3/s (4,080 m^3/s) Jan. 23, 1959, gage height, 32.5 ft (9.906 m), (from high-water mark in well); minimum daily, 166 ft^3/s (4.70 m^3/s) Sept. 27, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913 reached a stage of 39.8 ft (12.13 m), discharge, 260,000 ft^3/s (7,360 m^3/s) (estimated by Franklin County Conservancy District).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,600 ft^3/s (583 m^3/s) Apr. 5, gage height, 10.92 ft (3.328 m); minimum daily, 400 ft^3/s (11.3 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	2520	710	510	440	8710	4100	3100	816	1320	950	499
2	1080	2100	650	490	440	5880	3510	2970	862	2250	746	443
3	1040	1550	600	480	430	4690	12000	2670	768	1640	564	479
4	1040	1320	550	470	430	4670	17200	3340	726	1470	502	1490
5	1160	1290	500	460	430	7810	20100	5010	690	1540	475	835
6	1230	1340	460	460	430	8320	18000	8440	780	1340	454	557
7	1250	1350	540	450	430	7140	12500	9240	703	1070	452	1330
8	1280	1310	1000	450	420	5880	7780	9130	663	847	1530	788
9	1290	1290	853	440	440	4520	6320	5990	691	1070	1820	586
10	1390	1230	763	440	480	3490	8260	4270	2760	936	1130	477
11	1260	1130	697	430	540	2930	7740	3150	2100	802	799	425
12	988	1120	675	430	930	2830	7300	2530	1590	762	916	400
13	877	1110	865	430	2100	8970	7060	2130	1260	990	1680	420
14	842	1080	853	425	1900	13900	4570	1940	1160	859	1140	476
15	785	1150	796	425	1600	10400	3900	1770	1080	673	1200	1220
16	763	1050	819	425	1450	7950	3130	1620	961	596	963	1210
17	774	925	819	425	1300	5560	2670	1480	817	572	839	2010
18	763	731	830	430	1200	5860	2450	1380	745	721	703	1710
19	901	807	819	430	1100	10700	2220	1260	886	881	655	1130
20	819	807	819	440	1050	10700	2040	1170	923	659	566	1670
21	877	774	741	440	1000	9840	1910	1090	748	621	505	1710
22	1050	830	774	450	960	9090	1710	1020	681	1490	507	1340
23	830	865	741	460	2100	8520	.730	987	641	1250	680	1350
24	796	807	853	470	7290	7790	1960	1110	611	799	668	1220
25	1770	785	774	480	11500	6840	2570	1190	618	741	598	1110
26	2010	731	720	470	12700	5640	2750	1070	590	825	529	999
27	1510	785	680	470	12500	3960	2610	972	590	828	489	936
28	1210	938	640	470	10900	3320	2610	892	824	665	500	900
29	1070	870	600	460	---	3590	3570	840	2550	611	455	861
30	1010	800	560	450	---	3700	3850	841	2030	575	429	728
31	1150	---	530	450	---	4210	---	926	---	601	505	---
TOTAL	33895	33395	22231	14010	76490	207410	178120	83528	30864	30004	23949	29309
MEAN	1093	1113	717	452	2732	6691	5937	2694	1029	968	773	977
MAX	2010	2520	1000	510	12700	13900	20100	9240	2760	2250	1820	2010
MIN	763	731	460	425	420	2830	1710	840	590	572	429	400

CAL YR 1976 TOTAL 1044982 MEAN 2855 MAX 29900 MIN 458
WTR YR 1977 TOTAL 763205 MEAN 2091 MAX 20100 MIN 400

03231500 SCIOTO RIVER AT CHILLICOTHE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-51, 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1965 to current year.
pH: May 1965 to current year.
WATER TEMPERATURES: October 1950 to September 1951, October 1953 to current year.
DISSOLVED OXYGEN: May 1965 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,210 micromhos Jan. 13, 1976; minimum, 150 micromhos June 29, 1972.
pH: Maximum, 9.2 units Dec. 24, 26, 1973; minimum, 6.7 units Apr. 1, 2, 1975, Jan. 20, 29, 31, Feb. 1, 1976.
WATER TEMPERATURES: Maximum, 32.0°C July 14, 1954, Aug. 2, 3, 1955, July 20, 1977; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on several days during 1966-67, 1975-77; minimum, 0.0 mg/L Apr. 27, Aug. 12, Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,150 micromhos Feb. 9; minimum, 206 micromhos July 13.
pH: Maximum, 9.0 units May 28, Sept. 2, 3; minimum, 6.9 units Oct. 24, Dec. 15.
WATER TEMPERATURES: Maximum, 32.0°C July 20; minimum, 0.0°C on many days during December to February.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher May 18, 27-30, June 3, 4, 18, 19, 21; minimum, 2.5 mg/L Aug. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 09...	1330	4320	625	7.9	6.0	11.0	88	3.6	280	110	71	24
JUN 23...	1125	636	760	8.2	22.5	10.4	120	6.3	310	97	76	28

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 09...	21	4.1	200	0	164	4.0	80	41	.3	6.7	347	4.5
JUN 23...	36	4.9	260	0	213	2.6	94	42	.7	3.2	413	2.8

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 09...	.05	.82	.38	2	20	12	30	16	30	.0	--	9.0
JUN 23...	.06	.09	.85	4	<10	7	50	8	30	.0	40	9.8

03231500 SCIOTO RIVER AT CHILLICOTHE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	660	650	750	710	795	760	850	830	1020	1000	503	473
2	665	650	730	600	880	755	850	840	1050	1020	527	497
3	700	665	600	590	800	765	850	830	1040	966	546	471
4	710	700	640	600	810	775	830	820	1100	944	519	500
5	700	680	660	640	820	810	1020	810	936	920	---	---
6	690	635	670	660	962	815	810	780	978	930	---	---
7	680	675	675	670	870	820	800	770	1000	981	573	548
8	680	670	695	690	845	820	810	790	1030	980	591	537
9	680	390	700	700	860	845	860	810	1150	975	635	552
10	690	670	700	685	845	818	870	850	1110	905	669	632
11	700	690	680	680	835	812	900	870	1000	881	690	672
12	700	680	690	680	820	810	910	890	890	845	701	569
13	680	660	700	690	840	818	910	890	896	819	677	533
14	675	655	715	700	848	840	900	880	987	914	554	486
15	690	670	720	710	842	810	880	850	1040	990	594	555
16	700	680	730	720	810	748	880	850	1000	938	609	597
17	740	700	770	730	762	740	920	880	929	887	639	611
18	750	740	765	750	759	745	940	910	884	836	656	555
19	760	750	750	750	775	755	970	940	839	824	617	527
20	760	680	755	750	800	760	970	960	842	830	618	531
21	740	720	785	755	780	770	960	950	857	821	630	609
22	730	700	790	780	783	770	960	940	870	833	683	599
23	710	700	790	770	779	768	940	920	842	620	693	660
24	720	685	790	775	785	770	930	910	633	461	684	665
25	710	680	780	760	785	782	950	910	492	459	690	657
26	740	650	760	755	805	775	930	910	605	488	675	642
27	650	630	815	760	818	780	920	910	614	557	677	651
28	655	645	800	770	818	785	930	920	555	488	686	663
29	670	655	1070	775	790	775	950	930	---	---	687	674
30	690	660	930	780	805	790	950	940	---	---	684	675
31	710	680	---	---	825	800	1000	940	---	---	719	681
MONTH	760	390	1070	590	962	740	1020	770	1150	459	719	471

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	735	693	657	635	---	---	639	471	753	440	812	759
2	696	554	663	653	---	---	666	588	744	641	---	---
3	606	494	683	609	779	632	701	557	692	636	783	758
4	516	504	693	611	753	713	614	560	707	692	782	737
5	504	482	638	594	734	674	666	615	723	707	786	701
6	507	498	654	623	774	719	668	654	752	726	695	654
7	531	512	651	605	816	780	696	669	765	737	687	657
8	584	528	624	606	831	696	699	692	860	773	743	662
9	624	590	638	609	834	771	717	362	869	576	722	642
10	635	551	666	641	881	746	743	672	565	492	641	612
11	555	519	674	651	722	612	749	479	554	360	636	617
12	527	501	687	663	632	626	705	620	567	438	677	638
13	521	498	693	677	674	633	711	206	680	591	795	680
14	575	515	704	681	698	635	699	600	681	609	785	764
15	608	578	713	698	722	698	719	677	605	548	843	777
16	638	609	725	705	722	705	717	654	624	555	839	710
17	666	642	---	---	725	704	704	662	635	603	764	614
18	681	668	---	---	746	488	683	662	647	630	672	584
19	678	665	---	---	752	737	---	---	681	641	581	554
20	681	615	---	---	780	410	---	---	716	684	578	555
21	689	672	---	---	792	636	788	614	735	719	636	573
22	732	690	---	---	779	678	683	515	737	729	615	590
23	729	711	---	---	777	738	615	510	750	737	614	593
24	750	731	---	---	747	735	651	620	789	509	636	608
25	768	723	---	---	755	692	669	639	810	791	672	627
26	752	684	---	---	764	743	681	663	812	732	680	617
27	702	681	---	---	779	672	774	681	743	711	641	620
28	698	596	---	---	789	723	779	723	746	713	642	629
29	713	689	---	---	819	704	725	264	770	746	654	639
30	698	635	---	---	684	458	722	681	792	774	660	642
31	---	---	---	---	---	---	717	401	804	792	---	---
MONTH	768	482	725	594	881	410	788	206	869	360	843	554
YEAR	1150	206										

03231500 SCIOTO RIVER AT CHILLICOTHE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	7.3	---	---	7.8	7.4	7.9	7.6	7.7	7.4	7.8	7.7
2	8.2	7.7	---	---	7.8	7.4	7.7	7.3	7.9	7.7	7.8	7.7
3	8.1	7.9	---	---	7.9	7.6	7.3	7.2	8.0	7.9	7.9	7.7
4	7.9	7.5	---	---	7.6	7.3	7.3	7.0	8.2	8.0	8.0	7.9
5	7.8	7.4	---	---	7.7	7.3	7.3	7.0	8.2	8.0	---	---
6	7.8	7.5	7.5	7.3	7.6	7.3	7.5	7.3	8.1	8.0	---	---
7	7.6	7.5	7.7	7.5	7.5	7.2	7.6	7.4	8.1	8.0	7.9	7.9
8	7.5	7.0	7.7	7.6	7.7	7.5	7.8	7.4	8.1	7.6	8.0	7.8
9	7.4	7.3	7.6	7.5	7.7	7.4	7.4	7.3	7.8	7.7	8.1	8.0
10	7.5	7.0	7.6	7.4	7.4	7.0	7.6	7.3	7.9	7.8	8.1	8.0
11	7.1	7.0	7.4	7.3	7.5	7.0	7.8	7.6	7.9	7.8	8.0	7.9
12	7.2	7.1	7.6	7.3	7.4	7.2	7.8	7.6	7.9	7.8	8.0	7.9
13	7.5	7.1	7.6	7.4	7.9	7.4	7.8	7.5	7.9	7.8	7.9	7.7
14	7.7	7.0	7.5	7.2	8.0	7.3	7.5	7.2	7.9	7.7	7.9	7.7
15	7.7	7.5	7.4	7.1	7.4	6.9	7.3	7.2	7.7	7.6	8.2	8.0
16	7.7	7.5	7.5	7.1	7.4	7.1	7.8	7.3	7.7	7.6	8.2	8.1
17	7.6	7.5	8.0	7.2	7.7	7.3	7.9	7.7	7.9	7.7	8.1	8.0
18	7.9	7.5	8.1	7.7	7.5	7.2	7.8	7.6	7.9	7.9	8.1	8.0
19	7.6	7.4	8.0	7.7	7.5	7.1	7.7	7.5	7.9	7.8	8.0	7.9
20	7.4	7.1	7.9	7.8	7.7	7.0	7.5	7.2	7.9	7.8	8.1	8.0
21	7.5	7.0	7.9	7.7	8.1	7.7	7.4	7.2	7.9	7.7	8.2	8.0
22	7.6	7.1	8.0	7.8	7.8	7.5	7.6	7.4	7.9	7.7	8.2	7.9
23	7.5	7.2	7.9	7.7	7.6	7.4	7.7	7.4	7.9	7.8	7.9	7.8
24	7.4	6.9	7.8	7.6	7.7	7.4	7.4	7.0	7.8	7.6	7.9	7.9
25	7.5	7.1	7.7	7.6	7.5	7.0	7.2	7.1	7.8	7.6	7.9	7.8
26	7.4	7.1	7.8	7.6	7.3	7.0	7.3	7.0	8.0	7.8	7.9	7.8
27	7.4	7.1	8.0	7.8	7.7	7.4	7.6	7.2	8.0	7.8	7.9	7.8
28	7.5	7.3	7.9	7.7	7.4	7.2	7.7	7.4	7.8	7.7	7.9	7.9
29	7.5	7.2	8.2	7.8	7.7	7.4	7.8	7.7	---	---	8.0	7.9
30	7.3	7.2	7.9	7.7	7.7	7.4	7.7	7.5	---	---	8.0	7.9
31	7.5	7.1	---	---	7.5	7.8	7.7	7.4	---	---	8.0	7.9
MONTH	8.2	6.9	8.2	7.1	8.1	6.9	7.9	7.0	8.2	7.4	8.2	7.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.9	7.8	8.0	7.8	8.5	8.0	7.9	7.6	7.9	7.6	8.9	8.4
2	8.0	7.9	8.0	7.9	8.1	7.9	7.7	7.5	7.8	7.6	9.0	8.3
3	7.9	7.6	8.1	8.0	8.7	8.0	7.6	7.4	7.9	7.6	9.0	8.5
4	7.7	7.6	8.0	7.7	8.8	8.1	7.9	7.5	8.3	7.7	8.9	8.0
5	7.7	7.6	7.8	7.7	8.4	8.0	7.7	7.5	8.4	7.9	8.4	7.7
6	7.6	7.6	7.9	7.7	8.5	7.9	7.7	7.5	8.6	8.1	8.0	7.8
7	7.8	7.6	7.9	7.8	8.6	7.9	8.0	7.5	8.9	8.1	8.0	7.9
8	7.8	7.7	7.9	7.8	8.4	7.9	8.4	7.9	8.6	7.6	8.0	7.8
9	7.8	7.7	7.9	7.8	8.7	8.1	8.4	7.9	8.2	7.4	8.2	7.7
10	7.9	7.7	7.9	7.8	8.2	7.7	8.1	7.7	8.3	7.5	8.3	7.9
11	8.0	7.8	7.9	7.8	7.8	7.6	8.1	7.7	8.4	7.6	8.4	8.0
12	7.9	7.8	8.0	7.8	8.4	7.8	8.3	7.9	8.3	7.7	8.3	8.1
13	7.9	7.8	8.1	7.9	8.2	7.9	---	---	8.2	7.7	8.2	8.0
14	7.9	7.8	8.2	7.9	8.3	7.8	---	---	8.0	7.2	8.0	7.9
15	7.9	7.8	8.6	8.0	8.5	7.8	---	---	7.9	7.4	7.9	7.8
16	7.9	7.8	8.6	8.1	8.7	8.0	---	---	7.9	7.7	7.9	7.7
17	7.9	7.8	---	---	8.8	8.2	---	---	7.9	7.6	7.9	7.7
18	8.0	7.8	8.8	8.7	8.9	8.5	---	---	7.7	7.9	7.7	7.6
19	8.0	7.9	8.6	8.4	8.8	8.4	---	---	7.7	8.0	7.7	7.6
20	8.0	7.8	8.5	8.0	8.4	8.0	---	---	7.8	8.1	7.8	7.6
21	8.0	7.8	8.0	7.8	8.9	7.8	8.6	8.1	7.8	8.2	7.8	7.7
22	7.9	7.7	7.9	7.8	8.7	8.3	7.9	7.4	7.9	8.2	7.9	7.8
23	7.9	7.8	7.9	7.8	8.7	8.1	7.9	7.3	7.8	8.2	7.8	7.7
24	7.8	7.7	7.9	7.8	8.2	7.9	8.1	7.6	7.7	8.0	7.7	7.7
25	7.7	7.6	7.9	7.8	---	---	8.3	7.8	7.7	7.9	7.7	7.6
26	7.8	7.6	8.4	7.8	---	---	8.5	7.9	7.7	8.0	7.7	7.6
27	8.1	7.7	8.8	8.0	---	---	8.5	7.8	7.8	8.1	7.8	7.7
28	8.0	7.8	9.0	8.5	---	---	8.5	7.9	7.9	8.3	7.9	7.7
29	8.0	7.8	8.9	8.5	---	---	8.1	7.5	7.9	8.3	7.9	7.7
30	8.0	7.7	8.9	8.2	8.0	7.5	7.8	7.6	7.8	8.2	7.8	7.7
31	---	---	8.6	8.2	---	---	8.0	7.7	8.7	8.3	---	---
MONTH	8.1	7.6	9.0	7.7	8.9	7.5	8.6	7.3	8.9	7.2	9.0	7.6
YEAR	9.0	6.9										

03231500 SCICTO RIVER AT CHILLICOTHE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.0	8.5	7.0	3.5	1.5	0.5	0.0	0.0	0.0	3.5	2.5
2	18.0	15.5	8.5	7.0	3.0	1.0	0.0	0.0	1.0	0.0	4.0	3.0
3	17.5	16.0	9.0	8.0	1.5	0.5	0.5	0.0	0.0	0.0	3.5	2.5
4	18.5	16.0	8.5	7.0	2.0	1.0	0.5	0.0	0.0	0.0	3.5	3.0
5	19.0	16.5	8.0	7.0	2.0	1.0	0.5	0.0	0.5	0.0	---	---
6	18.5	18.0	8.0	6.5	2.0	1.0	0.5	0.0	1.0	0.0	---	---
7	17.0	15.5	7.5	6.5	3.0	1.5	0.5	0.0	1.0	0.0	4.5	4.5
8	15.5	14.5	6.5	5.5	1.5	1.0	0.0	0.0	1.0	0.0	5.0	4.0
9	15.0	13.0	6.5	5.0	2.0	1.0	0.0	0.0	0.5	0.0	6.5	4.0
10	14.0	12.0	7.0	6.0	3.5	1.5	0.0	0.0	0.0	0.0	7.5	4.5
11	13.5	12.0	6.5	6.0	3.5	3.0	0.0	0.0	0.5	0.0	9.0	7.5
12	14.0	11.5	6.0	5.0	4.0	3.0	0.0	0.0	0.5	0.0	11.0	9.0
13	16.0	13.0	6.0	4.5	3.5	2.0	0.0	0.0	2.0	0.0	10.5	10.0
14	15.5	13.5	5.5	4.5	3.5	2.0	0.0	0.0	2.5	1.5	10.0	8.5
15	16.0	13.5	6.0	5.0	4.0	3.0	0.0	0.0	3.0	1.5	9.0	8.0
16	15.0	13.0	5.5	4.5	3.5	2.0	0.0	0.0	2.5	1.0	9.5	8.0
17	13.5	12.0	5.5	4.0	5.0	3.0	0.5	0.0	1.5	0.0	9.5	9.0
18	13.0	10.0	6.0	4.5	4.0	2.5	0.5	0.0	0.5	0.0	10.5	8.5
19	11.5	10.5	7.0	6.0	4.5	3.0	0.0	0.0	2.0	0.0	9.5	7.0
20	11.5	10.5	6.5	5.5	5.5	3.0	0.0	0.0	1.5	1.0	7.5	7.0
21	11.0	10.0	6.5	5.5	9.0	1.0	0.0	0.0	2.5	1.5	7.5	6.5
22	10.0	9.0	5.5	4.5	9.0	0.5	0.0	0.0	4.0	3.0	8.5	7.0
23	9.5	8.5	5.0	4.0	1.5	0.0	0.0	0.0	4.0	3.0	9.0	8.0
24	10.0	9.0	4.5	3.5	6.0	0.0	0.0	0.0	3.0	2.0	9.0	8.0
25	10.0	9.5	9.5	3.5	6.0	0.5	0.0	0.0	2.5	2.0	9.0	8.0
26	10.5	9.0	7.0	5.0	5.5	0.5	0.0	0.0	3.0	2.0	9.0	8.0
27	9.5	8.5	9.0	8.5	9.0	0.5	0.0	0.0	3.5	3.0	9.5	8.5
28	8.5	6.5	8.5	6.0	1.0	0.5	0.0	0.0	3.5	2.5	10.0	9.0
29	8.5	6.5	6.0	4.0	1.0	0.5	0.0	0.0	---	---	11.5	10.0
30	8.0	7.0	4.0	2.5	1.0	0.0	0.0	0.0	---	---	13.5	11.5
31	8.5	8.0	---	---	0.5	0.0	0.0	0.0	---	---	14.0	13.0
MONTH	19.0	6.5	9.5	2.5	9.0	0.0	0.5	0.0	4.0	0.0	14.0	2.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	12.5	15.5	14.0	26.0	24.0	26.5	24.0	27.0	24.0	28.5	26.5
2	13.5	12.0	17.0	15.0	24.0	23.0	26.5	24.5	27.0	24.5	29.5	26.5
3	13.5	12.0	17.5	16.5	25.5	22.0	26.5	24.5	27.5	24.5	28.0	26.5
4	12.0	12.0	17.5	17.0	25.5	21.5	26.0	24.0	28.0	25.0	27.5	25.5
5	12.0	11.5	18.0	17.0	23.5	22.5	27.5	25.0	29.0	26.5	27.5	26.0
6	11.5	10.0	18.5	17.5	23.5	21.5	29.0	26.5	29.5	27.0	26.0	25.0
7	10.0	9.0	18.0	17.5	22.0	20.0	29.5	27.5	29.0	27.0	26.0	24.0
8	11.0	9.0	18.0	17.0	20.0	19.0	30.5	28.0	27.5	26.5	26.0	24.0
9	11.5	10.0	18.0	17.0	22.0	18.0	29.5	26.5	27.0	25.5	26.5	24.5
10	11.0	10.0	17.0	16.0	21.5	19.0	28.5	27.0	26.5	25.0	25.5	24.0
11	12.5	10.0	17.0	15.0	20.5	19.5	28.0	26.0	26.5	25.0	25.0	22.5
12	14.0	11.5	17.5	15.5	22.0	19.0	27.5	26.0	25.5	24.5	23.0	21.5
13	14.5	12.5	18.5	16.0	23.0	20.5	29.0	24.5	25.0	24.0	24.0	21.5
14	15.0	13.0	19.0	17.0	24.0	22.0	28.5	26.5	26.0	24.0	23.0	22.0
15	15.5	14.5	20.5	18.0	25.5	22.0	29.5	27.5	26.5	24.5	23.0	21.5
16	16.5	27.5	21.0	18.5	25.5	23.0	30.0	27.5	27.5	25.5	23.0	22.0
17	17.0	15.5	---	---	28.0	24.5	30.0	27.0	27.0	25.5	23.5	22.0
18	17.0	15.5	24.5	23.5	27.5	25.0	31.0	28.0	26.0	24.0	24.0	22.5
19	17.5	16.0	25.5	22.5	26.5	24.5	31.0	24.0	25.0	23.0	24.0	23.0
20	18.5	17.0	26.0	23.0	27.0	25.0	32.0	29.5	24.5	23.0	23.5	23.0
21	18.5	17.0	26.5	23.5	27.0	24.5	30.5	28.0	24.5	23.0	22.0	21.0
22	18.5	17.5	26.0	23.5	25.5	22.5	29.0	27.0	25.0	22.5	21.5	20.0
23	18.5	18.0	26.5	23.5	24.5	22.0	28.5	26.0	25.0	23.0	22.0	20.0
24	18.0	16.5	26.0	24.0	25.0	23.5	28.0	26.0	---	---	22.0	21.0
25	16.5	15.5	25.0	24.0	25.5	23.5	27.5	26.5	---	---	22.5	21.0
26	15.0	14.0	26.0	22.5	27.5	24.0	27.5	25.5	24.0	23.5	23.0	22.0
27	15.5	13.5	27.0	23.0	27.0	24.5	27.0	24.5	26.0	23.0	22.5	21.5
28	14.5	14.0	27.0	24.0	27.5	25.5	27.0	24.0	27.5	25.0	21.0	20.0
29	15.0	14.0	27.0	24.5	27.0	25.0	25.5	24.0	28.0	26.0	20.5	19.0
30	15.0	13.5	27.0	23.5	26.0	24.5	26.5	24.0	27.5	26.0	21.0	19.5
31	---	---	26.5	24.0	---	---	27.5	24.0	28.5	25.5	---	---
MONTH	18.5	9.0	27.0	14.0	28.0	18.0	32.0	24.0	29.5	22.5	29.5	19.0
YEAR	32.0	0.0										

03231500 SCIOTO RIVER AT CHILLICOTHE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.1	4.9	6.8	5.6	10.1	7.9	11.3	10.3	8.4	8.1	11.8	11.6
2	7.4	5.3	8.1	5.6	10.1	8.3	10.8	10.0	8.5	8.2	11.5	11.3
3	6.7	5.6	8.2	7.5	10.6	8.7	10.4	9.8	8.6	8.1	11.3	11.0
4	6.7	4.9	7.9	7.3	1.0	8.4	10.2	9.6	8.4	7.9	11.0	10.7
5	7.5	3.0	8.2	7.2	10.7	8.2	9.9	9.5	8.3	7.9	---	---
6	6.1	4.4	8.9	7.6	10.7	8.2	9.9	9.4	8.3	7.9	---	---
7	4.4	3.8	9.0	7.7	8.6	7.8	9.8	9.1	8.7	8.3	10.9	10.8
8	4.8	3.9	8.8	7.8	8.7	7.8	10.1	9.7	9.0	8.7	13.1	10.8
9	7.0	4.1	9.0	7.5	9.8	7.8	10.1	9.6	9.8	9.0	12.7	10.7
10	5.4	4.3	9.0	7.8	10.7	8.9	10.3	9.6	10.0	9.5	10.6	9.8
11	5.5	4.5	9.0	7.8	10.6	9.6	10.8	10.1	9.9	9.4	9.9	9.4
12	5.9	4.9	9.9	8.0	11.6	10.1	10.5	9.9	9.7	8.7	9.3	8.8
13	7.4	5.2	9.7	8.0	12.4	9.8	10.5	9.6	9.0	8.3	9.0	8.1
14	7.5	6.3	10.1	8.2	10.6	9.2	9.8	8.9	9.1	8.2	9.3	8.3
15	7.1	5.4	9.9	8.2	11.9	9.2	9.1	8.7	9.6	8.6	9.7	9.3
16	6.9	5.0	10.1	8.0	12.1	10.1	9.2	8.6	10.1	9.6	9.6	9.5
17	7.0	5.0	9.7	7.5	12.3	9.7	9.3	8.7	10.4	10.0	9.5	9.0
18	7.7	5.4	10.7	8.1	12.4	10.2	8.7	8.3	10.6	10.2	9.4	9.1
19	8.0	6.0	10.2	7.9	11.7	9.6	8.4	7.7	10.6	10.0	9.9	9.2
20	6.9	5.8	9.8	7.7	10.0	9.1	8.0	7.5	10.1	9.4	10.5	9.9
21	7.8	5.6	9.4	7.3	12.1	9.7	8.0	7.6	10.5	9.3	10.6	10.4
22	8.4	6.3	8.9	7.3	12.0	10.1	8.0	7.4	10.7	9.4	10.5	10.3
23	8.1	6.3	9.9	7.7	12.2	10.4	7.9	7.3	10.3	9.6	10.4	10.2
24	6.6	5.5	8.9	7.7	11.8	10.9	7.5	7.1	10.1	9.7	10.5	10.4
25	6.4	5.4	10.1	7.7	11.4	10.3	7.5	7.1	10.7	10.2	10.6	10.4
26	6.4	4.8	9.5	7.7	11.8	10.6	7.8	7.2	11.2	10.4	10.5	10.1
27	7.8	6.4	9.0	6.9	11.7	10.3	8.0	7.6	11.4	11.1	10.1	9.2
28	8.9	7.5	6.9	5.8	10.8	10.2	8.3	7.6	11.7	11.4	9.3	8.6
29	9.1	7.5	8.1	5.7	11.0	10.1	8.7	7.7	---	---	8.6	7.8
30	8.1	7.2	9.2	7.0	---	---	8.8	8.4	---	---	7.8	7.2
31	7.3	6.7	---	---	11.2	10.4	8.6	8.3	---	---	7.8	7.2
MONTH	9.1	3.0	10.7	5.6	12.4	7.8	11.3	7.1	11.7	7.9	13.1	7.2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	7.7	8.0	6.9	12.9	6.3	6.8	4.2	6.8	4.4	13.3	7.1
2	8.4	8.0	7.0	6.2	12.3	5.4	4.8	3.2	4.9	4.2	14.1	6.6
3	8.0	7.1	8.3	6.2	15.0	6.1	6.1	2.6	7.8	4.2	14.5	6.9
4	8.2	8.0	7.0	6.0	15.0	7.4	6.3	4.4	10.5	5.7	9.8	5.9
5	8.6	8.2	6.1	5.3	11.3	6.8	5.2	4.1	12.2	6.7	10.2	3.4
6	9.5	8.6	6.6	5.3	12.0	6.2	6.1	3.5	13.2	6.8	7.0	3.6
7	9.7	9.4	6.8	6.3	13.0	5.0	7.4	4.0	14.5	7.1	5.9	3.9
8	9.5	9.3	6.9	6.3	11.2	6.2	10.3	5.2	10.0	3.4	6.5	3.7
9	9.3	9.1	7.4	6.7	14.3	6.2	9.5	5.4	4.7	2.5	8.8	4.3
10	9.7	9.0	7.7	7.0	9.3	4.5	6.6	4.3	4.6	3.8	8.7	5.3
11	9.4	8.8	7.7	7.0	4.6	3.4	5.9	3.3	5.9	4.3	9.1	5.6
12	8.8	8.2	8.1	6.8	9.8	4.3	7.8	4.1	5.5	4.3	8.3	6.0
13	8.3	8.0	8.8	6.7	10.4	5.7	10.6	5.1	4.3	3.8	8.4	5.8
14	8.1	7.5	9.6	6.2	9.6	5.2	6.5	5.1	5.1	3.5	7.0	5.3
15	7.6	7.1	12.5	7.0	---	---	12.9	6.0	6.1	4.7	5.3	4.4
16	7.8	7.0	13.1	7.5	---	---	13.1	7.5	7.5	5.0	5.3	3.4
17	7.4	6.7	---	---	---	---	14.1	6.2	8.3	5.1	4.8	3.5
18	7.8	6.5	15.0	14.0	15.0	8.6	14.7	6.3	9.6	5.5	4.5	3.6
19	8.0	6.8	14.4	9.1	15.0	7.9	11.9	4.4	9.5	5.6	5.1	3.7
20	7.5	6.1	11.0	6.6	13.9	5.2	13.8	5.9	10.9	6.4	5.5	4.7
21	7.4	5.6	6.4	5.1	15.0	7.2	12.1	5.4	10.5	7.2	5.4	4.9
22	6.8	4.9	5.8	3.7	11.8	7.5	6.4	4.2	11.5	6.8	6.7	5.5
23	7.0	5.4	6.0	3.4	14.4	6.8	7.1	4.0	11.0	7.3	6.8	6.1
24	6.5	5.1	6.2	3.4	10.5	6.5	9.4	4.7	9.3	6.3	6.1	5.6
25	6.0	4.6	6.5	3.3	11.4	5.3	10.0	6.1	12.1	5.4	5.8	5.3
26	7.1	5.1	13.0	3.6	13.5	5.7	12.4	6.3	11.9	5.9	6.5	5.1
27	9.1	6.7	15.0	6.7	12.5	5.7	11.8	5.2	13.1	6.6	6.8	5.7
28	7.7	6.9	15.0	9.2	13.7	6.2	11.6	6.0	14.1	7.6	7.0	5.8
29	8.1	6.9	15.0	8.7	5.3	3.0	7.8	4.9	13.7	7.5	7.7	6.1
30	7.7	6.0	15.0	7.3	6.9	2.7	5.4	3.5	11.9	6.7	8.5	6.6
31	---	---	14.3	7.6	---	---	8.4	5.0	12.0	6.2	---	---
MONTH	9.7	4.6	15.0	3.3	15.0	2.7	14.7	2.6	14.5	2.5	14.5	3.4
YEAR	15.0	2.5										

03232000 PAINT CREEK NEAR GREENFIELD, OH

LOCATION.--Lat 39°22'45", long 83°22'32", Fayette County, Hydrologic Unit 05060003, on right bank at upstream side of bridge on State Highway 753, 0.6 mi (1.0 km) upstream from Stone Run, 2.0 mi (3.2 km) north of Greenfield, and 3.0 mi (4.8 km) downstream from Indian Creek.

DRAINAGE AREA.--249 mi² (645 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1926 to November 1935, October 1939 to September 1956; water years 1962-66 (occasional low-flow measurements), (annual maximums), water years 1963-66. October 1966 to current year.

REVISED RECORDS.--WSP 743: 1926(M). WSP 758: 1926-33. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 844.27 ft (257.333 m) above mean sea level. Prior to Feb. 14, 1940 nonrecording gage, Feb. 14, 1940 to June 3, 1955 water-stage recorder, June 4, 1955 to Sept. 30, 1956 nonrecording gage, at same site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--37 years (1926-35, 1939-56, 1966-77), 225 ft³/s (6.372 m³/s), 12.27 in/yr (312 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 ft³/s (615 m³/s) May 26, 1969, gage height, 14.28 ft (4.353 m); no flow Sept. 10, 18, 27, 29, 30, Oct. 1, 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s (42.5 m³/s) Apr. 2, gage height, 5.64 ft (1.719 m), no peaks above base of 2,000 ft³/s (56.64 m³/s); minimum, 2.8 ft³/s (0.079 m³/s) Sept. 13-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	44	13	8.6	8.0	267	110	151	56	30	65	4.0
2	12	38	13	8.6	8.0	205	314	333	46	30	34	4.2
3	11	39	12	8.5	8.0	176	654	264	38	20	18	4.0
4	10	38	11	8.4	8.0	530	613	239	34	18	13	14
5	8.3	35	10	8.4	8.0	705	675	360	31	16	9.6	10
6	13	30	10	8.4	8.0	514	557	438	35	15	7.4	7.0
7	12	27	23	8.4	8.0	343	435	692	33	11	6.1	5.6
8	12	29	33	8.4	8.0	261	343	503	29	10	5.6	4.9
9	13	26	21	8.4	8.0	210	272	322	32	19	9.6	4.2
10	19	23	17	8.3	9.0	178	228	236	31	15	10	4.0
11	17	23	16	8.2	20	147	197	183	25	15	12	4.0
12	14	21	15	8.1	98	197	169	147	23	20	18	4.0
13	12	21	14	8.0	240	580	153	127	20	27	29	3.6
14	8.3	19	14	8.0	200	481	143	112	24	27	43	3.2
15	8.3	21	13	8.4	170	365	131	98	95	12	66	12
16	7.5	20	12	8.2	150	255	114	87	90	11	41	17
17	6.8	19	11	8.2	125	195	103	76	57	33	36	43
18	6.8	18	11	8.2	100	500	98	72	44	21	36	33
19	6.8	17	10	8.2	90	456	93	69	52	13	20	29
20	12	16	10	8.2	83	374	85	61	64	9.8	14	26
21	23	16	10	8.2	75	284	81	55	35	7.6	12	24
22	17	14	9.8	8.2	69	281	76	50	36	18	12	21
23	13	14	9.6	8.1	200	284	79	47	37	18	13	18
24	28	14	9.4	8.1	600	258	85	49	32	14	11	16
25	48	14	9.2	8.0	1070	215	91	72	28	13	11	14
26	32	17	9.0	8.0	985	183	112	63	27	11	12	12
27	53	21	8.8	8.0	533	162	93	52	24	9.7	9.4	11
28	53	18	8.7	8.0	347	164	100	45	25	9.4	7.1	10
29	40	16	8.7	8.0	---	158	171	41	29	8.6	5.5	9.0
30	34	15	8.6	8.0	---	143	160	181	25	7.5	4.9	8.0
31	46	---	8.6	8.0	---	127	---	91	---	7.3	4.5	---
TOTAL	611.8	683	389.4	254.7	5228.0	9198	6535	5236	1139	496.9	603.7	379.7
MEAN	19.7	22.8	12.6	8.22	187	297	218	169	38.0	16.0	19.5	12.7
MAX	53	44	33	8.6	1070	705	675	692	95	33	66	43
MIN	6.8	14	8.6	8.0	8.0	127	76	41	20	7.3	4.5	3.2
CFSM	.08	.09	.05	.03	.75	1.19	.88	.68	.15	.06	.08	.05
IN.	.09	.10	.06	.04	.78	1.37	.98	.78	.17	.07	.09	.06

CAL YR 1976 TOTAL 52901.0 MEAN 145 MAX 3900 MIN 5.0 CFSM .58 IN 7.90
WTR YR 1977 TOTAL 30755.2 MEAN 84.3 MAX 1070 MIN 3.2 CFSM .34 IN 4.59

03232000 PAINT CREEK NEAR GREENFIELD OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION.--Water temperature recorder.

REMARKS.--Interruptions in the water temperature record were due to malfunction of the instrument. Sediment data collected at this site 1969 to 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.0°C Aug. 2, 3, 1975, July 6, 9, 1977; minimum, 0.0°C on many days during 1975, and 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 29.0°C July 8, 9; minimum recorded, 0.0°C on many days during December to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
15...	1100	365	678	8.1	8.5	10.8	92	.9	340	110	79	34
JUL												
07...	1345	11	675	8.2	26.5	8.4	110	.5	300	75	66	34

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
15...	10	1.6	278	0	228	3.5	59	35	.2	6.7	363	7.1
JUL												
07...	18	2.7	280	0	230	2.8	58	37	.3	4.3	358	1.1

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
15...	.05	.10	.13	1	10	6	10	9	10	.0	30	8.7
JUL												
07...	.01	.04	.78	4	10	3	10	8	10	.0	60	7.7

03232000 PAINT CREEK NEAR GREENFIELD, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.0	7.0	5.0	1.5	0.5	1.0	0.0	1.0	0.0	3.5	3.0
2	16.5	13.5	7.0	5.0	1.0	0.0	0.5	0.0	1.0	0.0	4.0	3.5
3	17.0	14.5	8.0	6.0	3.0	0.5	0.0	0.0	---	---	4.0	3.5
4	16.5	14.0	6.5	5.0	1.5	0.5	0.0	0.0	---	---	6.0	4.0
5	18.0	14.5	6.5	5.0	2.0	0.0	0.5	0.0	---	---	6.0	5.5
6	16.5	15.0	6.5	4.5	1.5	0.0	0.0	0.0	---	---	5.5	5.0
7	15.0	13.5	6.5	5.0	0.5	0.0	0.5	0.0	---	---	5.5	5.5
8	14.0	13.0	5.0	4.5	1.5	0.0	0.0	0.0	---	---	5.5	5.5
9	13.0	11.5	5.5	4.5	1.5	0.0	0.0	0.0	0.0	6.0	6.0	5.5
10	12.5	10.0	6.0	4.5	0.5	0.0	0.5	0.0	0.0	0.0	6.5	6.0
11	13.0	9.5	5.5	4.5	0.5	0.0	0.0	0.0	0.0	0.0	7.0	6.5
12	13.5	10.0	5.5	4.5	0.5	0.5	0.0	0.0	0.0	0.0	11.0	7.0
13	14.5	12.0	5.0	4.0	1.5	0.0	0.0	0.0	0.0	0.0	10.5	10.0
14	13.5	11.0	4.5	4.0	3.0	0.0	0.0	0.0	0.0	0.0	10.0	9.5
15	14.5	11.0	5.0	3.5	1.0	0.0	0.0	0.0	0.0	0.0	9.5	9.0
16	12.5	10.5	4.5	3.5	1.5	0.0	0.0	0.0	0.0	0.0	10.0	9.5
17	11.5	9.5	4.5	4.0	0.5	0.5	0.0	0.0	0.5	0.0	9.5	9.5
18	10.0	7.0	5.5	4.0	1.5	0.0	0.0	0.0	1.0	0.5	11.0	9.5
19	10.5	7.5	7.0	4.5	0.5	0.0	0.0	0.0	1.0	0.5	10.0	9.5
20	10.0	8.5	5.5	4.5	0.5	0.0	0.0	0.0	0.5	0.5	9.5	9.5
21	9.5	8.0	5.0	4.0	2.0	0.0	0.0	0.0	0.5	0.5	9.5	9.5
22	8.5	6.5	4.5	4.0	1.5	0.0	0.0	0.0	1.0	0.0	9.5	9.5
23	7.5	6.0	4.5	3.5	1.0	0.0	0.0	0.0	1.0	0.0	9.5	9.5
24	9.0	7.0	4.5	3.5	1.0	0.0	0.0	0.0	1.5	0.5	9.5	9.5
25	9.5	8.5	4.5	4.0	0.0	0.0	0.0	0.0	1.0	1.0	9.5	9.5
26	9.0	7.5	7.5	5.0	1.0	0.0	0.0	0.0	2.0	1.0	9.5	9.5
27	7.5	6.0	8.5	7.5	1.0	0.0	0.0	0.0	3.0	2.0	10.0	9.5
28	6.5	5.0	7.0	4.5	1.0	0.0	1.0	0.0	3.0	3.0	10.0	10.0
29	6.5	5.0	5.0	2.0	0.5	0.0	1.0	0.0	---	---	10.5	10.0
30	6.5	5.5	2.5	1.0	0.5	0.0	0.5	0.0	---	---	11.0	10.5
31	7.0	6.5	---	---	---	0.0	0.5	0.0	---	---	11.0	11.0
MONTH	18.0	5.0	8.5	1.0	3.0	0.0	1.0	0.0	3.0	0.0	11.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	11.0	16.0	15.0	22.0	21.5	25.0	23.5	24.0	22.0	26.0	22.0
2	16.5	11.0	17.0	16.0	22.0	21.5	25.0	23.5	23.0	22.0	25.5	23.5
3	14.5	13.0	17.0	17.0	22.0	21.0	24.5	22.5	23.5	22.0	24.5	23.0
4	14.0	13.0	17.5	17.0	21.5	20.5	24.5	22.5	23.5	22.0	23.5	23.0
5	13.5	12.5	19.0	17.5	21.5	20.5	26.5	23.5	24.0	22.0	23.5	22.0
6	12.5	11.0	20.0	18.0	21.5	21.0	27.0	25.0	25.0	23.0	22.0	22.0
7	11.0	10.5	19.0	18.5	21.5	20.0	27.5	24.0	25.0	23.5	23.5	21.5
8	11.5	11.0	18.5	18.0	20.5	19.0	29.0	24.5	24.0	23.5	23.5	21.0
9	11.5	11.0	18.0	17.0	20.0	19.0	29.0	26.0	26.0	23.0	24.0	21.0
10	12.5	11.5	17.0	16.0	20.0	19.0	26.0	24.5	25.5	23.5	24.0	21.5
11	13.5	12.5	16.5	16.0	20.0	19.0	26.0	23.5	23.5	23.0	22.0	18.0
12	14.0	13.5	16.5	16.0	20.5	19.5	25.5	24.5	23.5	23.0	20.5	18.5
13	14.5	14.0	17.0	16.5	22.5	19.0	27.0	24.0	23.5	23.0	21.0	20.0
14	15.0	14.5	17.5	17.0	22.5	20.0	25.0	24.0	24.0	23.0	21.0	20.0
15	15.0	15.0	18.0	17.5	23.0	22.0	25.5	23.0	24.0	23.0	22.0	19.5
16	15.0	14.5	18.5	17.5	22.0	21.5	25.5	24.0	24.0	23.5	22.0	20.5
17	15.0	14.5	19.0	18.5	23.0	21.5	25.5	23.0	24.0	24.0	23.5	21.0
18	15.5	15.0	20.5	19.0	24.0	22.5	25.5	24.0	23.5	22.0	24.5	21.5
19	16.0	15.5	22.0	19.5	23.5	23.0	26.0	24.5	23.0	21.0	24.5	22.0
20	16.5	16.0	21.5	20.5	23.5	22.5	26.0	24.0	22.0	20.5	23.0	20.5
21	16.5	16.0	22.0	21.5	23.5	22.5	27.0	24.5	21.5	20.5	20.5	18.5
22	16.5	16.5	22.5	21.5	23.0	22.0	26.0	25.5	21.5	20.5	21.0	16.5
23	17.0	16.5	22.5	21.5	22.0	21.0	25.0	24.0	22.0	21.0	22.0	18.5
24	16.5	16.0	26.0	21.5	22.5	21.5	25.5	23.5	22.0	21.0	21.5	20.5
25	16.5	15.5	24.5	21.5	23.5	22.0	25.5	24.0	22.0	20.0	23.0	20.0
26	15.5	15.0	22.0	21.0	24.5	22.5	24.5	22.0	21.5	20.0	24.0	20.0
27	15.5	14.5	22.0	21.0	24.5	22.5	24.5	21.5	22.0	20.5	22.0	19.0
28	15.5	15.0	22.5	21.0	25.0	23.0	24.0	21.0	22.5	21.0	20.0	17.0
29	15.5	14.5	23.0	21.0	25.0	23.5	23.5	23.0	23.5	21.5	20.5	15.5
30	15.5	14.5	24.0	21.5	25.0	23.0	24.5	21.5	23.5	23.0	21.0	15.5
31	---	---	21.5	21.0	---	---	25.0	22.0	24.5	22.0	---	---
MONTH	17.0	10.5	26.0	15.0	25.0	19.0	29.0	21.0	26.0	20.0	26.0	15.5
YEAR	29.0	0.0										

03232300 RATTLESNAKE CREEK NEAR CENTERFIELD, OH

LOCATION.--Lat 39°19'44", long 83°28'32", Highland County, Hydrologic Unit 05060003, on right bank 600 ft (183 m) upstream from county road bridge at Centerfield, 0.6 mi (1.0 km) upstream from Walnut Creek, 1.5 mi (2.4 km) downstream from Lees Creek, and 2.4 mi (3.9 km) southeast of East Monroe.

DRAINAGE AREA.--209 mi² (541 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water stage recorder. Datum of gage is 822.32 ft (250.643 m) above mean sea level.

REMARKS.--Records good except those for winter periods and no gage height record, which are fair. Additional discharge data for Rattlesnake Creek watershed are on page 419.

AVERAGE DISCHARGE.--6 years, 224 ft³/s (6.353 m³/s), 14.55 in/yr (370 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,370 ft³/s (209 m³/s) Feb. 24, 1975, gage height, 12.97 ft (3.953 m); minimum, 1.8 ft³/s (0.051 m³/s) Aug. 22-24, 1972, Sept. 24-26, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 23	2300	ice jam		*7.95	2.423	Apr. 2	1900	*2400	68.0	7.14	2.176

Minimum discharge, 1.8 ft³/s (0.051 m³/s) Sept. 12-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	26	6.0	3.6	3.4	168	76	124	75	28	175	4.1
2	3.3	21	5.9	3.6	3.4	127	508	322	51	33	25	3.3
3	3.1	18	5.8	3.6	3.4	118	752	276	38	30	11	2.9
4	2.7	16	5.7	3.6	3.4	691	553	216	29	19	7.2	3.1
5	2.5	14	6.2	3.6	3.4	663	721	245	25	14	5.6	2.9
6	2.7	12	5.6	3.6	3.5	406	501	383	24	11	4.4	3.1
7	3.3	11	10	3.6	3.5	269	358	733	22	9.3	3.3	3.3
8	3.3	11	14	3.6	3.5	197	288	604	22	8.0	4.1	3.3
9	5.6	10	11	3.6	3.5	156	213	359	30	7.6	6.2	2.9
10	5.6	9.7	8.4	3.6	4.0	127	180	234	26	7.6	6.5	2.3
11	5.0	9.3	7.8	3.6	100	105	153	170	23	11	5.6	2.0
12	4.7	8.8	7.2	3.6	160	184	126	129	21	13	18	1.8
13	4.4	8.4	6.8	3.6	190	602	113	107	19	15	21	1.8
14	3.8	8.0	6.5	3.6	170	386	107	94	19	40	18	2.0
15	3.3	8.0	6.2	3.6	140	254	98	82	97	14	39	1.8
16	3.3	7.4	6.0	3.6	120	185	88	71	110	8.8	37	9.3
17	3.3	6.9	5.8	3.6	100	136	82	61	70	6.9	62	19
18	3.3	6.9	5.5	3.6	86	744	77	55	52	5.9	76	16
19	3.3	6.9	5.1	3.5	76	503	72	50	43	5.0	48	15
20	6.5	6.5	4.9	3.5	70	350	68	47	44	4.4	27	12
21	6.9	6.5	4.7	3.5	62	256	63	43	38	4.4	17	9.3
22	6.5	6.5	4.5	3.5	58	259	60	38	31	11	14	7.6
23	7.6	6.5	3.9	3.5	230	249	60	34	28	8.0	11	6.5
24	26	6.2	3.8	3.5	1200	206	61	86	25	6.5	10	5.3
25	28	6.2	3.7	3.5	697	159	65	75	23	10	8.4	4.4
26	20	6.2	3.7	3.4	542	132	75	57	20	6.9	11	3.8
27	16	7.2	3.6	3.4	356	115	65	46	19	5.0	14	3.3
28	12	7.6	3.6	3.4	232	116	64	38	18	3.8	7.6	2.9
29	11	7.6	3.6	3.4	---	114	145	37	34	3.6	5.9	2.7
30	21	6.8	3.6	3.4	---	101	167	100	29	5.6	5.3	2.3
31	33	---	3.6	3.4	---	88	---	123	---	3.8	4.7	---
TOTAL	264.8	293.1	182.7	109.7	4624.0	8166	5959	5039	1105	360.1	708.8	160.0
MEAN	8.54	9.77	5.89	3.54	165	263	199	163	36.8	11.6	22.9	5.33
MAX	33	26	14	3.6	1200	744	752	733	110	40	175	19
MIN	2.5	6.2	3.6	3.4	3.4	88	60	34	18	3.6	3.3	1.8
CFSM	.04	.05	.03	.02	.79	1.26	.95	.78	.18	.06	.11	.03
IN.	.05	.05	.03	.02	.82	1.45	1.06	.90	.20	.06	.13	.03

CAL YR 1976 TOTAL 45561.1 MEAN 124 MAX 3630 MIN 1.8 CFSM .59 IN 8.11
WTR YR 1977 TOTAL 26972.2 MEAN 73.9 MAX 1200 MIN 1.8 CFSM .35 IN 4.80

Note: No gage height record Jan. 1 to Feb. 17.

03232300 RATTLESNAKE CREEK NEAR CENTERFIELD, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1974 to current year.

INSTRUMENTATION.--Water temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5 °C July 7, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.5 °C July 7; minimum, 0.0 °C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
15...	1300	250	655	8.3	11.0	11.8	106	.5	320	110	74	32
JUL												
07...	1200	8.7	620	8.2	28.0	8.1	100	1.4	290	64	64	32

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
15...	9.6	1.5	251	3	211	2.1	54	35	.2	6.1	339	7.1
JUL												
07...	12	2.1	278	0	228	2.8	45	32	.2	4.2	329	1.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
15...	.03	.01	.08	1	10	3	0	4	10	.0	40	8.5
JUL												
07...	.01	.03	.08	2	10	4	10	20	10	.0	60	5.9

03232300 RATTLESNAKE CREEK NEAR CENTERFIELD, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	HARD-NESS (CA,MG) (MG/L)
NOV 14...	1000	7.1	610	8.2	4.5	2	12.0	92	330
FEB 28...	1215	535	480	8.1	1.5	30	12.1	86	210
MAR 29...	1350	122	605	8.5	15.0	5	12.8	120	310
MAY 03...	1630	236	645	8.4	17.0	25	9.5	98	310
JUN 28...	1445	15	605	8.2	25.0	10	8.3	99	300
AUG 25...	1135	9.4	565	8.2	20.5	20	9.5	100	280

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
NOV 14...	74	69	39	17	316	0	60	392	28
FEB 28...	82	48	21	11	152	0	38	309	98
MAR 29...	100	70	34	9.7	238	11	56	373	36
MAY 03...	74	73	31	8.1	290	4	53	384	91
JUN 28...	84	68	32	11	248	0	48	374	59
AUG 25...	61	64	29	11	266	0	43	365	46

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 14...	.25	.01	.27	.24	.25	.52	.03	.01	130
FEB 28...	5.8	.06	5.9	1.2	1.7	7.6	.24	.15	2200
MAR 29...	4.7	.04	4.7	.36	.39	5.1	.05	.01	390
MAY 03...	9.6	.12	9.7	.63	.72	10	.11	.07	1200
JUN 28...	1.7	.01	1.7	.60	.64	2.3	.07	.04	490
AUG 25...	1.6	.01	1.6	.54	.60	2.2	.06	.04	900

03232300 RATTLESNAKE CREEK NEAR CENTERFIELD, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	13.5	6.0	4.0	1.0	0.5			---	---	3.0	0.5
2	16.0	13.0	6.5	4.0	1.5	0.5			---	---	3.0	0.0
3	16.0	14.0	7.5	6.0	1.0	0.5			---	---	3.5	1.5
4	16.0	13.0	6.0	4.0	1.5	0.5			---	---	6.0	4.0
5	17.0	13.5	6.0	4.0	1.0	0.5			---	---	5.5	4.0
6	16.5	15.0	5.5	3.5	1.0	0.5			---	---	6.0	2.5
7	14.5	13.0	6.0	3.5	1.5	0.5			---	---	5.0	3.0
8	13.5	12.0	3.5	2.0	1.0	0.5			---	---	6.5	2.0
9	12.5	11.0	4.5	2.0	1.0	0.5			---	---	8.5	5.0
10	12.0	9.0	6.0	4.0	1.0	0.5			0.0	0.0	10.0	7.0
11	11.5	8.5	5.0	3.5	1.5	1.0			0.0	0.0	10.5	7.0
12	12.5	9.0	4.5	3.0	1.5	0.5			0.0	0.0	11.0	10.5
13	14.5	11.5	3.5	1.0	1.0	0.5			0.0	0.0	10.5	8.5
14	13.0	10.5	2.0	0.5	1.0	0.0			0.0	0.0	10.0	7.5
15	13.5	10.5	3.5	2.0	0.5	0.5			0.0	0.0	11.0	7.5
16	12.5	10.0	2.5	0.5	1.0	0.5			0.0	0.0	11.5	9.5
17	11.5	9.0	3.0	0.5	1.0	0.5			0.0	0.0	9.5	7.5
18	8.5	6.5	4.0	2.0	1.0	0.5			0.0	0.0	8.5	7.0
19	9.5	6.5	6.0	3.5	2.0	0.5			0.0	0.0	7.0	5.5
20	9.0	8.0	4.5	2.5	2.5	0.5			0.0	0.0	6.0	5.0
21	8.5	7.0	4.0	2.0	1.0	0.0			0.0	0.0	7.5	3.0
22	7.0	5.5	2.5	1.0	0.5	0.0			0.0	0.0	7.5	5.5
23	6.0	4.5	1.0	0.5	0.5	0.0			0.0	0.0	7.0	3.5
24	8.0	6.0	1.5	0.5	0.5	0.0			0.5	0.0	7.0	3.5
25	8.5	8.0	3.5	0.5	0.0	0.0			1.5	0.0	8.0	4.5
26	8.5	7.0	6.5	4.0	0.5	0.0			3.0	0.5	9.0	5.5
27	7.0	4.5	9.0	7.0	0.5	0.0			2.5	1.0	9.5	7.0
28	5.5	3.0	7.5	2.5	0.5	0.0			2.5	0.0	11.5	9.5
29	6.0	3.0	2.0	1.0	0.0	0.0			---	---	14.0	10.5
30	5.5	4.5	1.0	0.5	0.0	0.0			---	---	15.5	13.0
31	6.5	5.5	---	---	0.0	0.0			---	---	14.5	10.5
MONTH	17.0	3.0	9.0	0.5	2.5	0.0			3.0	0.0	15.5	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	8.0	16.0	12.5	23.0	21.0	24.5	21.5	22.0	18.5	---	---
2	14.0	11.0	17.0	14.5	21.5	19.0	24.5	21.5	24.0	18.0	---	---
3	13.0	10.0	16.5	15.0	21.5	18.0	24.0	21.0	22.5	18.5	---	---
4	10.0	9.0	16.5	15.5	21.5	17.0	25.0	21.0	23.5	19.0	---	---
5	10.0	7.0	18.0	16.0	20.5	18.5	27.0	24.0	25.0	21.5	---	---
6	6.5	5.0	18.0	17.0	21.5	19.5	28.0	25.0	25.0	22.5	---	---
7	9.0	4.0	17.0	15.0	20.0	16.5	28.5	25.5	24.5	22.5	---	---
8	10.5	7.0	16.5	13.0	18.0	15.0	28.0	25.0	23.0	22.0	23.0	22.0
9	10.0	6.5	15.0	12.0	19.0	15.0	26.5	25.0	---	---	23.0	19.5
10	13.0	8.0	14.0	10.5	20.0	15.5	25.0	23.0	---	---	22.5	19.5
11	15.0	11.5	15.5	11.0	19.0	17.5	24.0	21.5	---	---	20.0	16.0
12	16.5	13.5	16.0	13.0	20.5	17.0	24.5	22.5	---	---	18.0	15.0
13	17.5	14.5	18.0	14.5	21.5	19.0	27.0	23.5	---	---	20.0	17.0
14	17.5	15.0	19.0	16.5	22.0	20.5	25.5	22.0	---	---	19.5	18.0
15	17.0	14.5	19.5	17.0	23.0	20.0	26.0	23.0	---	---	19.5	16.5
16	17.0	14.0	20.0	17.0	22.5	20.0	26.0	24.0	---	---	20.0	18.5
17	16.5	15.0	20.5	18.0	24.5	21.5	26.0	23.0	---	---	21.0	18.5
18	18.0	14.5	21.5	19.0	24.0	22.5	27.0	23.0	---	---	22.0	19.0
19	18.5	16.5	22.0	20.0	23.5	22.0	27.5	24.0	---	---	22.0	20.5
20	18.5	16.5	22.5	20.0	24.5	22.0	27.5	24.0	---	---	21.0	18.0
21	18.5	17.0	23.0	20.0	23.5	21.0	27.0	24.5	---	---	18.0	16.0
22	18.0	17.0	22.5	20.5	22.0	19.0	26.0	23.0	---	---	18.0	14.0
23	17.5	16.0	23.0	20.5	21.0	17.5	24.5	20.5	---	---	19.5	15.5
24	16.0	14.0	23.0	21.0	22.0	19.5	24.0	20.0	---	---	19.5	17.5
25	13.5	11.0	22.5	21.5	23.0	21.0	24.0	22.5	---	---	19.5	17.5
26	13.0	9.5	23.0	20.0	25.0	21.0	24.0	20.5	---	---	20.0	18.5
27	15.0	10.0	23.0	20.0	24.0	22.0	23.5	18.5	---	---	18.5	16.5
28	14.0	11.5	23.0	20.5	24.5	22.5	23.0	18.0	---	---	17.0	15.0
29	13.5	9.0	22.5	21.0	25.0	22.5	21.5	20.0	---	---	16.5	13.0
30	14.0	10.0	23.0	19.5	23.5	21.0	23.0	19.0	---	---	16.5	13.0
31	---	---	23.0	21.0	---	---	24.0	20.0	---	---	---	---
MONTH	18.5	4.0	23.0	10.5	25.0	15.0	28.5	18.0	25.0	18.0	23.0	13.0
YEAR	28.5	0.0										

03232470 PAINT CREEK BELOW PAINT CREEK DAM, NEAR BAINBRIDGE, OH

LOCATION.--Lat 39°15'08", long 83°20'58", Highland County, Hydrologic Unit 05060003, on right bank, 400 ft (122 m) downstream from Paint Creek dam, 700 ft (213 m) upstream from Cliff Creek, and 4.5 mi (7.2 km) northwest of Bainbridge.

DRAINAGE AREA.--570 mi² (1,476 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- Water years 1962-67, (occasional low-flow measurements), water years 1963-67 (annual maximums). Published as "at damsite near Bainbridge" 1963-67.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) above mean sea level (levels by Corps of Engineers). Prior to May 3, 1968, water-stage recorder and crest-stage gage at partial-record site 1,000 ft (305 m) downstream at datum 42.96 ft (13.094 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Paint Creek Lake (see station 03232460).

AVERAGE DISCHARGE.--10 years, 538 ft³/s (15.24 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 45,000 ft³/s (1,270 m³/s) Mar. 10, 1964, gage height, 27.3 ft (8.32 m), site and datum then in use; minimum daily, 4.7 ft³/s (0.13 m³/s) Sept. 1, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,370 ft³/s (67.1 m³/s) May 7, gage height, 51.84 ft (15.801 m); minimum daily, 9.3 ft³/s (0.26 m³/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	41	86	26	17	583	182	417	221	69	53	49
2	37	41	71	24	17	385	187	916	210	69	55	49
3	37	40	48	20	17	435	683	589	124	69	53	49
4	39	184	37	18	17	1250	390	516	79	69	55	49
5	39	426	37	16	17	1680	459	595	68	41	55	49
6	40	426	36	15	17	1420	910	815	68	28	56	49
7	40	421	36	15	17	707	440	1740	68	184	56	49
8	40	381	36	15	17	601	896	1350	46	28	56	48
9	48	345	40	15	17	455	999	722	34	28	56	49
10	39	345	67	15	17	403	930	669	34	28	52	49
11	39	341	97	15	17	330	589	464	33	28	46	49
12	39	341	97	15	20	288	337	360	49	51	45	49
13	39	341	69	15	39	943	288	215	58	86	46	49
14	40	337	48	15	80	1680	278	241	58	161	44	51
15	40	288	35	15	150	1040	275	271	59	202	46	51
16	41	218	34	15	300	655	253	184	192	42	47	52
17	40	215	34	15	160	490	247	124	238	27	47	51
18	40	215	33	15	90	1030	215	199	172	26	47	49
19	40	215	33	15	83	1750	202	192	172	26	47	49
20	41	213	33	15	80	1160	150	132	120	20	47	49
21	41	213	33	15	77	757	128	118	99	9.6	47	49
22	41	213	33	15	75	669	128	118	56	9.6	47	49
23	41	210	33	16	100	669	128	118	35	9.3	48	49
24	41	199	33	17	971	678	128	118	32	9.6	48	49
25	41	187	33	17	1780	516	128	118	80	11	48	49
26	40	180	33	17	1900	399	166	116	109	20	49	49
27	40	180	32	17	1670	345	177	116	79	42	48	49
28	40	180	32	17	815	315	210	114	69	46	48	49
29	40	180	32	17	---	202	262	114	69	52	48	49
30	40	148	31	17	---	215	305	113	69	52	49	49
31	41	---	30	17	---	319	---	192	---	52	49	---
TOTAL	1233	7264	1362	511	8577	22369	10670	12066	2800	1595.1	1530	1478
MEAN	39.8	242	43.9	16.5	306	722	356	389	93.3	51.5	49.6	49.3
MAX	41	426	97	26	1900	1750	999	1740	238	202	56	52
MIN	37	40	30	15	17	202	128	113	32	9.3	44	48

CAL YR 1976 TOTAL 115266.6 MEAN 315 MAX 5170 MIN 6.5
WTR YR 1977 TOTAL 71464.1 MEAN 196 MAX 1900 MIN 9.3

03232470 PAINT CREEK BELOW PAINT CREEK DAM, NEAR BAINBRIDGE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 29...	1300	1.6	625	8.2	13.0	11.2	106	.8	300	100	70	30
JUN 14...	1245	56	555	8.2	21.5	9.2	100	4.4	250	73	50	31

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 29...	9.3	1.8	240	0	197	2.4	49	30	.2	4.5	313	5.5
JUN 14...	8.8	2.1	216	0	177	2.2	50	28	.2	1.4	278	3.7

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 29...	.04	.15	.11	1	10	3	20	3	30	.4	0	--
JUN 14...	.09	.20	.05	2	10	2	10	0	10	.0	10	6.0

03232500 ROCKY FORK NEAR BARRETTS MILLS, OH

LOCATION.--Lat 39°13'06", long 83°23'08", Highland County, Hydrologic Unit 05060003, on left bank at downstream side of highway bridge, 1.1 mi (1.8 km) north of Barretts Mills, 2 mi (3 km) east of Rainsboro, 2.8 mi (4.5 km) upstream from mouth, and 6 mi (10 km) downstream from Rocky Fork Lake.

DRAINAGE AREA.--140 mi² (363 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 770.8 ft (234.94 m) above mean sea level, levels by Corps of Engineers. Prior to Feb. 15, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter periods, which are poor. Some diurnal fluctuation caused by mill 6 mi (10 km) upstream from station. Flow regulated by Rocky Fork Lake 6 mi (10 km) upstream, since 1952, capacity, 34,100 acre-ft (42.0 hm³).

AVERAGE DISCHARGE.--38 years, 151 ft³/s (4.28 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft³/s (379 m³/s) Mar. 10, 1964 from rating curve extended above 8,800 ft³/s (249 m³/s) on basis of velocity-area studies; maximum gage height, 15.56 ft (4.743 m) Mar. 6, 1945; minimum daily discharge, 0.90 ft³/s (0.025 m³/s) Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 979 ft³/s (27.7 m³/s) Apr. 3, gage height, 5.42 ft (1.652 m); minimum daily, 5.8 ft³/s (0.16 m³/s) Nov. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	97	12	8.6	8.9	148	29	53	19	76	8.8	22
2	35	90	11	8.6	8.8	125	226	79	15	76	6.3	21
3	29	97	10	8.6	8.8	122	860	84	14	67	6.8	20
4	25	69	9.8	8.6	8.8	565	610	90	12	52	6.3	17
5	20	141	9.6	8.6	8.7	516	778	140	9.4	43	6.3	13
6	17	158	9.3	8.4	8.7	376	586	174	13	34	6.3	12
7	16	10	9.0	8.4	8.7	281	441	426	13	27	6.3	12
8	13	10	8.8	8.4	8.8	217	320	352	11	21	6.3	13
9	41	8.9	8.7	13	8.9	180	236	229	13	17	7.0	11
10	56	9.1	8.6	13	9.3	159	158	160	13	18	6.7	10
11	36	7.4	8.6	30	12	135	97	122	13	98	9.6	8.1
12	25	5.8	8.5	30	16	230	94	99	12	120	23	8.0
13	21	7.4	8.4	32	21	440	90	86	11	131	50	6.8
14	18	11	8.5	34	28	370	84	76	12	129	49	7.0
15	23	9.8	8.6	32	37	290	79	67	11	85	49	7.6
16	16	10	8.6	32	58	190	73	58	11	66	46	43
17	14	11	8.6	8.5	80	150	71	53	9.6	48	39	102
18	13	15	8.6	8.5	58	500	68	48	9.6	37	30	100
19	13	113	8.7	8.5	37	450	67	43	27	28	21	95
20	13	13	8.6	8.5	24	330	64	36	22	22	15	92
21	24	11	8.7	8.6	19	250	60	29	16	18	11	64
22	26	9.4	8.7	8.7	23	200	59	64	15	16	13	41
23	19	8.6	8.7	8.7	50	240	63	18	15	14	14	30
24	93	8.0	8.7	8.8	180	190	62	14	14	11	85	24
25	102	7.4	8.7	8.9	386	156	60	15	21	10	29	20
26	80	9.5	8.6	9.0	290	144	56	14	26	9.4	20	17
27	75	52	8.6	9.1	225	133	52	14	26	8.7	44	15
28	76	119	8.6	9.2	174	131	53	15	34	7.6	31	13
29	57	14	8.6	9.2	---	126	60	16	42	8.0	23	13
30	49	13	8.6	9.1	---	105	55	15	42	7.6	29	10
31	97	---	8.6	9.0	---	28	---	19	---	12	35	---
TOTAL	1180	1145.3	277.6	416.5	1806.4	7477	5611	2708	521.6	1317.3	732.7	867.5
MEAN	38.1	38.2	8.95	13.4	64.5	241	187	87.4	17.4	42.5	23.6	28.9
MAX	102	158	12	34	386	565	860	426	42	131	85	102
MIN	13	5.8	8.4	8.4	8.7	28	29	14	9.4	7.6	6.3	6.8

CAL YR 1976 TOTAL 41999.9 MEAN 115 MAX 2460 MIN 5.8
WTR YR 1977 TOTAL 24060.9 MEAN 65.9 MAX 860 MIN 5.8

03232500 ROCKY FORK NEAR BARRETTS MILLS, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 29...	1130	131	420	8.3	10.0	11.6	103	.5	200	37	45	22
JUN 15...	1100	12	445	8.1	21.5	7.6	85	2.3	210	23	46	23

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 29...	6.4	3.0	200	1	166	1.6	28	15	.1	2.5	222	.82
JUN 15...	5.6	2.6	228	0	187	2.9	30	11	.2	4.1	235	.35

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 29...	.02	.14	.04	1	10	2	20	3	50	.6	80	--
JUN 15...	.01	.05	.06	3	20	2	10	0	10	.0	10	6.3

03234000 PAINT CREEK NEAR BOURNEVILLE, OH

LOCATION.--Lat 39°15'49", long 83°10'01", Ross County, Hydrologic Unit 05060003, on upstream side of left abutment of highway bridge, 0.2 mi (0.3 km) downstream from Sulfur Lick, 1.2 mi (1.9 km) southwest of Bourneville, and 1.2 mi (1.9 km) upstream from Upper Twin Creek.

DRAINAGE AREA.--807 mi² (2,090 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to January 1937, January 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as "at Bainbridge" October 1921 to September 1923 and as "near Bainbridge" January 1938 to May 1939.

REVISED RECORDS.--WRD Ohio 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 665.56 ft (202.863 m) above mean sea level. See WSP 1725 for history of changes prior to May 3, 1939.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Paint Creek Lake 17 mi (27.4 km) upstream since 1971, capacity 145,000 acre-ft (179 hm³) and Rocky Fork Lake 23 mi (37 km) upstream since 1952, capacity, 34,100 acre-ft (42.0 hm³).

AVERAGE DISCHARGE.--54 years (1921-36, 1939-77), 786 ft³/s (22.26 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,900 ft³/s (1,610 m³/s) Mar. 10, 1964, gage height, 20.50 ft (6.248 m), from rating curve extended above 30,000 ft³/s (736 m³/s) on basis of contracted-opening measurement at gage height 20.08 ft (6.120 m); minimum daily, 5 ft³/s (0.1 m³/s) Oct. 29, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,620 ft³/s (103 m³/s) May 7, gage height, 6.30 ft (1.920 m); minimum daily, 30 ft³/s (0.85 m³/s) Feb. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	140	127	62	31	872	371	460	234	139	83	79
2	83	130	105	59	31	594	394	1240	234	136	79	74
3	80	123	94	56	31	674	2460	1010	182	120	69	70
4	78	116	84	53	31	1900	1460	835	125	111	68	68
5	75	443	76	50	31	2590	1670	1070	99	104	67	67
6	75	668	76	48	30	2250	2060	1350	98	82	66	65
7	78	466	76	45	30	1350	1270	2820	95	76	65	64
8	79	417	77	43	30	1020	1440	2420	95	72	65	64
9	86	356	105	41	30	822	1660	1400	86	70	68	63
10	110	352	130	39	30	715	1530	1050	77	83	67	61
11	98	351	150	37	31	562	1110	849	75	89	66	60
12	91	350	140	35	37	597	698	621	73	136	81	59
13	86	350	130	34	70	2450	581	456	82	205	93	56
14	84	349	110	33	120	2430	524	344	86	259	95	60
15	80	345	98	33	300	2020	503	387	83	360	89	58
16	77	233	84	32	420	1100	467	333	92	190	83	74
17	75	223	82	32	230	956	438	208	243	105	81	123
18	72	222	82	32	140	1680	407	225	168	92	77	124
19	71	342	82	32	120	2730	359	273	172	83	72	112
20	72	241	81	32	110	2050	327	207	165	78	68	104
21	80	208	80	32	100	1430	257	167	116	71	66	95
22	85	200	80	32	120	1230	249	169	110	64	66	85
23	81	190	80	32	200	1170	249	168	79	59	65	79
24	88	180	79	31	1290	1060	249	148	71	55	70	76
25	131	180	78	31	2270	982	239	145	76	52	81	72
26	131	177	77	31	2490	717	251	138	126	50	76	72
27	120	181	76	31	2300	615	280	137	130	51	86	68
28	110	336	74	31	1240	562	297	136	117	60	83	66
29	103	213	71	31	---	447	428	135	122	73	78	64
30	101	173	68	31	---	391	434	135	116	69	75	63
31	119	---	65	31	---	380	---	160	---	69	84	---
TOTAL	2786	8255	2809	1172	11893	38346	22652	19196	3627	3263	2332	2245
MEAN	89.9	275	90.6	37.8	425	1237	755	619	121	105	75.2	74.8
MAX	131	668	150	62	2490	2730	2460	2820	243	360	95	124
MIN	71	116	65	31	30	380	239	135	71	50	65	56

CAL YR 1976 TOTAL 187526 MEAN 512 MAX 5940 MIN 60
WTR YR 1977 TOTAL 118576 MEAN 325 MAX 2820 MIN 30

03234000 PAINT CREEK NEAR BOURNEVILLE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 29...	1545	387	560	8.2	13.5	10.6	100	1.1	260	75	60	26
JUN 13...	1345	86	569	8.3	22.5	9.9	110	3.3	280	58	62	30

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 29...	8.0	2.4	222	0	182	2.2	42	22	.2	4.2	274	3.8
JUN 13...	7.3	2.3	264	2	220	2.1	45	20	.2	4.1	304	2.0

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 29...	.04	.05	.08	1	20	4	20	0	30	.0	10	--
JUN 13...	.02	.06	.04	3	10	3	10	0	10	.0	10	6.5

03234500 SCIOTO RIVER AT HIGBY, OH
(NATIONAL STREAM QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 39°12'44", long 82°51'50", in sec. 6, T.7 N., R.20 W., Ross County, Hydrologic Unit 05060002, on left bank at downstream side of highway bridge, 0.8 mi (1.3 km) downstream from Walnut Creek, 1.2 mi (1.9 km) north of Higby, 3 mi (5 km) northwest of Richmondale and 5.0 mi (8.0 km) upstream from Salt Creek.

DRAINAGE AREA.--5,131 mi² (13,289 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 893: 1937(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 567.28 ft (172.907 m) above mean sea level. Prior to Nov. 7, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow slightly regulated by 7 reservoirs 45 mi (72 km) to 105 mi (169 km) upstream from station. See stations 03220500, 03221500, 03225000, 03228400, 03228805, 03230890, 03232460, and since 1952 by Rocky Fork Lake 51 mi (82 km) upstream, capacity, 34,100 acre-ft (42.0 hm³).

AVERAGE DISCHARGE.--47 years, 4,460 ft³/s (126 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 177,000 ft³/s (5,010 m³/s Jan. 23, 1937, from rating curve extended above 112,000 ft³/s (3,170 m³/s); maximum gage height, 26.4 ft (8.05 m) Jan. 23, 1937, from floodmarks, and Jan. 23, 1959; minimum daily discharge, 244 ft³/s (6.91 m³/s) Oct. 23, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 31.6 ft (9.63 m) occurred Mar. 26, 1913, and has not been exceeded since.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,400 ft³/s (634 m³/s) Apr. 5, gage height, 12.64 ft (3.853 m); minimum daily, 570 ft³/s (16.1 m³/s) Jan. 16-19, Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	2350	1200	680	589	9560	4320	3500	1150	1810	1480	695
2	1350	2500	1100	660	589	6520	3990	3700	1220	2180	1200	733
3	1270	1970	1000	640	590	5280	14500	3720	1120	1970	860	772
4	1250	1760	930	630	580	6900	17800	3970	994	1670	733	1370
5	1320	1740	860	620	580	10300	21600	5380	904	1760	695	1270
6	1450	2060	800	620	580	10400	20600	8720	919	1590	670	815
7	1430	2100	900	610	570	8660	15200	11200	919	1400	660	1270
8	1480	1970	1300	600	580	6740	9320	12100	815	1090	1150	1150
9	1540	1920	1350	600	590	5440	7410	7820	860	1240	2110	860
10	1600	1850	1240	590	630	4300	8870	5260	2130	1350	1430	720
11	1650	1760	1190	590	700	3660	8430	4120	2150	1120	1100	651
12	1350	1730	1170	580	880	3560	7410	3330	1760	1140	1170	611
13	1170	1700	1290	580	1400	12100	7180	2840	1460	1380	1790	589
14	1070	1680	1340	580	2200	16200	5180	2470	1370	1980	1510	626
15	1040	1710	1240	580	2100	12900	4260	2300	1290	1290	1480	1070
16	994	1670	1250	570	1950	9140	3630	2180	1190	1430	1370	1730
17	979	1520	1240	570	1850	6590	3190	1950	1100	1030	1170	1820
18	979	1320	1240	570	1700	7990	3000	1810	1120	933	1030	2080
19	1040	1290	1200	570	1600	12800	2730	1730	1090	1200	889	1520
20	1100	1420	1200	580	1500	12800	2550	1630	1240	964	815	1630
21	1030	1290	1170	590	1450	11000	2400	1510	1030	860	720	1900
22	1240	1300	1120	600	1400	10200	2160	1400	919	1650	682	1630
23	1120	1340	1070	610	1800	9470	2110	1370	845	1540	772	1520
24	1040	1300	1030	620	7720	8430	2250	1380	759	1140	874	1430
25	1570	1240	980	630	13000	7540	2620	1450	746	904	785	1380
26	2180	1170	940	620	14500	6230	2950	1370	733	964	759	1270
27	1820	1170	900	620	14300	4640	2870	1270	785	1030	707	1170
28	1590	1380	860	610	12300	3900	2870	1170	845	889	707	1120
29	1450	1490	810	610	---	3970	3590	1090	2180	845	695	1070
30	1370	1320	770	604	---	3920	4120	1140	2300	830	720	964
31	1480	---	730	597	---	4260	---	1190	---	800	790	---
TOTAL	41242	49020	33420	18731	88228	245400	199110	104070	35943	39979	31523	35486
MEAN	1330	1634	1078	604	3151	7916	6637	3357	1198	1290	1017	1183
MAX	2180	2500	1350	680	14500	16200	21600	12100	2300	2180	2110	2080
MIN	979	1170	730	570	570	3560	2110	1090	733	800	660	589

CAL YR 1976 TOTAL 1322130 MEAN 3612 MAX 33700 MIN 730
WTR YR 1977 TOTAL 922152 MEAN 2526 MAX 21600 MIN 570

03234500 SCIOTO RIVER AT HIGBY, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1967 to current year.
pH: March 1967 to current year.
WATER TEMPERATURES: October 1953 to current year.
DISSOLVED OXYGEN: March 1967 to current year.
SUSPENDED SEDIMENT DISCHARGE: Water years 1954-74 (daily mean concentration and discharge), 1975 to current year (periodic instantaneous concentration and discharge).

INSTRUMENTATION.--Water-quality monitor since March 1967.

REMARKS.--Samples were collected each month as part of the National Stream Quality Accounting Network. Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,060 micromhos Feb. 10, 1977; minimum, 113 micromhos Sept. 16, 1975.
pH: Maximum, 9.2 units May 28, June 4, 1977; minimum, 6.7 units Mar. 5, 1973, Jan. 4, 1977.
WATER TEMPERATURES: Maximum, 34.0°C June 29, 1966; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on several days during 1971, 1972, 1976-77; minimum, 0.0 mg/L on many days during 1968, Sept. 13, 1969.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,520 mg/L June 23, 1954; minimum daily mean, 1 mg/L on several days during 1955-56.
SEDIMENT LOADS: Maximum daily, 550,000 tons (499,000 tonnes) Jan. 23, 1959; minimum daily, 0.82 ton (0.74 tonne) Sept. 8, 1955.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,060 micromhos Feb. 10; minimum, 285 micromhos Mar. 13.
pH: Maximum, 9.2 units May 28, June 4; minimum, 6.7 units Jan. 4.
WATER TEMPERATURES: Maximum, 31.0°C July 19, 20; minimum, 0.0 °C Dec. 24, 25, 27, 30, Jan. 1, 2, 8, 11-13.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher May 27, 28, June 3, 4, 17; minimum, 2.9 mg/L June 30, Aug. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT											
14...	1100	1090	730	8.0	15.0	12	6.3	62	1000	170	290
NOV											
11...	1030	1760	640	7.7	6.5	--	8.4	68	1200	560	--
DEC											
02...	1100	1170	745	7.9	3.0	--	9.3	69	350	130	--
JAN											
26...	1600	651	955	7.8	2.0	--	6.3	46	340	180	--
FEB											
15...	1030	2100	890	7.3	1.0	13	9.0	64	12000	9400	270
MAR											
10...	1000	4280	610	7.7	7.0	--	10.2	84	930	1000	--
APR											
06...	1300	20400	450	7.6	9.5	85	8.8	76	6000	21000	220
MAY											
03...	0930	3740	620	8.0	17.5	--	7.7	80	1400	920	--
JUN											
01...	1005	1170	770	8.6	24.5	--	6.8	81	270	340	--
JUL											
13...	1200	1370	675	7.8	26.5	1	5.0	62	830	1400	290
AUG											
10...	1430	1380	650	7.7	26.0	--	4.1	50	5200	650	--
SEP											
21...	1030	1950	645	7.6	21.5	--	6.5	73	1200	400	--

03234500 SCIOTO RIVER AT HIGBY, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT 14...	97	75	26	36	4.4	240	0	197	3.8	100	50
NOV 11...	--	--	--	--	--	--	--	--	--	--	--
DEC 02...	--	--	--	--	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	--	--	--	--	--	--	--
FEB 15...	110	66	26	72	6.0	198	0	162	16	120	110
MAR 10...	--	--	--	--	--	--	--	--	--	--	--
APR 06...	97	55	19	11	3.6	145	0	120	5.8	54	23
MAY 03...	--	--	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--
JUL 13...	110	72	26	37	4.3	220	0	180	5.6	98	49
AUG 10...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)
OCT 14...	.5	6.1	447	417	1.9	1.5	3.4	15	.56	9.8	14000
NOV 11...	--	--	--	--	1.7	1.2	2.9	13	.42	--	18000
DEC 02...	--	--	--	--	1.8	1.8	3.6	16	.55	--	5300
JAN 26...	--	--	--	--	1.5	7.4	8.9	39	1.4	--	26000
FEB 15...	.5	5.0	541	503	1.9	3.3	5.2	23	.88	11	42000
MAR 10...	--	--	--	--	4.1	1.7	5.8	26	.33	--	29000
APR 06...	.2	6.5	300	244	4.4	2.0	6.4	28	.34	11	2100
MAY 03...	--	--	--	--	3.6	1.3	4.9	22	.30	--	25000
JUN 01...	--	--	--	--	2.0	2.8	4.8	21	.67	--	340000
JUL 13...	.3	5.6	438	401	1.8	1.8	3.6	16	.59	6.1	35000
AUG 10...	--	--	--	--	1.1	1.7	2.8	12	.52	--	--
SEP 21...	--	--	--	--	1.6	1.1	2.7	12	.47	--	--

03234500 SCIOTO RIVER AT HIGBY, OH--Continued

ANALYSES OF MINOR ELEMENTS

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT 14...	1100	2	2	1	0	<10	<10	1	1	0	0	490
FEB 15...	1030	4	2	0	0	<10	<10	1	1	10	10	800
APR 06...	1300	1	1	0	0	20	0	4	0	21	21	7400
JUL 13...	1200	3	2	0	0	30	1	2	0	9	9	1100

DATE	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 14...	50	9	3	120	100	<.5	<.5	0	0	30	30
FEB 15...	70	15	7	110	80	<.5	<.5	0	0	40	20
APR 06...	30	17	0	140	0	.0	.0	0	0	20	10
JUL 13...	30	4	4	130	50	.0	.0	0	0	50	10

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 14...	1100	1090	15.0	18	53
NOV 11...	1030	1760	6.5	16	76
DEC 02...	1100	1170	3.0	13	41
JAN 26...	1600	651	2.0	23	40
FEB 15...	1030	2750	1.0	36	267
MAR 10...	1000	4280	7.0	39	451
APR 06...	1300	20400	9.5	217	12000
MAY 03...	0930	3740	17.5	80	808
JUN 01...	1005	1170	24.5	52	164
JUL 13...	1200	1370	26.5	69	255
AUG 10...	1430	1380	26.0	79	294
SEP 21...	1030	1950	21.5	56	295

03234500 SCIOTO RIVER AT HIGBY, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	681	654	684	651	753	743	837	801	999	956	491	467
2	654	647	701	611	749	740	875	783	1030	1000	507	471
3	669	647	608	579	767	743	864	854	1050	1020	537	506
4	693	660	600	581	756	644	861	839	1040	1000	534	405
5	698	677	635	600	786	758	843	819	1010	984	528	435
6	677	662	608	587	795	681	842	824	984	945	567	527
7	674	666	611	593	795	749	825	812	995	950	558	539
8	696	656	632	612	780	678	834	804	1010	993	576	546
9	669	620	644	630	780	678	843	804	1050	1000	599	575
10	666	617	647	635	812	801	861	815	1060	1050	627	602
11	674	662	642	632	803	777	884	863	1050	984	644	627
12	695	675	638	632	774	758	905	876	978	842	654	627
13	690	627	645	636	783	764	912	903	825	669	551	285
14	730	666	653	642	804	783	906	888	818	684	488	458
15	678	668	717	650	804	794	897	890	923	815	558	495
16	692	672	719	678	798	783	890	881	948	879	585	560
17	722	690	705	696	782	740	914	887	882	815	606	584
18	752	723	740	729	743	735	945	914	836	807	611	384
19	762	753	729	717	755	735	954	935	833	819	549	444
20	764	752	720	695	773	756	960	933	831	816	564	512
21	764	737	725	696	770	761	980	957	834	815	584	569
22	738	729	753	725	770	707	984	972	824	774	584	570
23	731	699	759	753	800	749	980	971	765	521	594	527
24	699	689	758	755	752	738	974	947	543	477	602	531
25	702	662	762	743	761	701	966	941	485	458	611	600
26	711	674	743	731	737	671	962	951	557	491	606	599
27	708	621	740	731	738	674	962	954	597	560	618	602
28	636	623	752	741	750	734	971	950	557	492	636	617
29	648	638	746	720	749	737	989	972	---	---	650	635
30	659	650	768	732	774	735	971	954	---	---	662	648
31	660	639	---	---	801	777	980	956	---	---	675	652
MONTH	764	617	768	579	812	644	989	783	1060	458	675	285

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	677	662	632	615	770	749	653	620	585	486	815	773
2	666	386	636	600	771	747	660	596	720	597	803	623
3	464	327	633	600	783	759	636	611	728	680	684	578
4	477	455	651	579	764	731	668	596	738	686	734	686
5	467	437	593	533	749	731	644	615	771	743	738	713
6	450	440	606	537	765	740	701	662	786	771	725	669
7	471	443	600	506	776	752	701	686	816	768	659	612
8	509	470	560	522	809	774	764	723	843	786	656	618
9	552	507	578	561	818	750	762	747	867	782	731	660
10	572	543	609	581	819	770	755	671	809	593	725	698
11	543	527	623	605	873	657	749	702	594	582	713	693
12	530	509	642	621	654	636	705	690	605	576	764	711
13	516	506	659	642	666	653	687	674	618	591	795	762
14	558	512	680	656	699	671	581	471	710	620	801	792
15	593	564	687	674	719	684	647	575	713	629	821	794
16	612	591	692	677	746	707	656	377	629	599	791	555
17	635	614	696	684	753	698	681	473	669	624	683	597
18	648	632	707	693	753	711	722	683	678	666	636	584
19	660	645	708	698	747	717	762	723	695	677	633	588
20	663	654	719	695	753	680	785	710	735	696	587	572
21	668	651	735	668	785	638	776	533	770	738	645	581
22	683	669	---	---	800	732	776	587	788	770	657	627
23	693	684	---	---	810	722	609	521	789	773	629	615
24	710	689	---	---	788	746	669	441	783	771	644	617
25	725	704	779	773	794	708	707	659	809	776	686	645
26	720	660	782	768	819	741	711	692	828	807	710	690
27	672	645	771	698	815	798	729	707	839	788	711	704
28	675	660	740	711	804	773	813	732	800	774	725	714
29	657	636	749	722	815	780	819	771	786	768	729	722
30	657	621	773	737	806	644	770	734	818	788	734	723
31	---	---	756	744	---	---	756	741	825	803	---	---
MONTH	725	327	782	506	873	636	819	377	867	486	821	555
YEAR	1060	285										

03234500 SCIOTO RIVER AT HIGBY, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.2	7.8	---	---	8.0	7.7	7.8	7.2	---	---	7.8	7.8
2	8.2	8.0	---	---	8.0	7.9	7.8	7.7	---	---	7.8	7.7
3	8.2	8.1	---	---	8.0	7.7	7.8	7.6	---	---	7.8	7.7
4	8.3	8.1	---	---	8.0	7.9	7.6	6.7	---	---	7.8	7.7
5	8.3	8.1	---	---	8.2	7.8	7.6	7.5	---	---	7.8	7.8
6	8.2	8.1	8.0	7.8	8.2	8.1	7.6	7.5	---	---	7.9	7.8
7	8.0	7.9	8.0	7.7	8.2	8.0	7.6	7.5	---	---	7.9	7.8
8	8.1	7.9	7.7	7.5	8.1	8.0	7.6	7.5	---	---	7.9	7.5
9	8.1	7.9	7.9	7.5	8.1	8.0	7.4	7.3	---	---	7.9	7.6
10	8.1	7.9	7.8	7.7	7.9	7.7	7.5	7.3	---	---	7.9	7.7
11	8.1	7.9	7.7	7.6	7.9	7.8	7.5	7.4	---	---	7.9	7.6
12	8.2	7.9	7.8	7.6	7.9	7.9	7.5	7.3	---	---	7.9	7.8
13	8.2	8.1	7.8	7.5	7.9	7.8	7.6	7.3	---	---	7.9	7.6
14	8.2	8.0	7.8	7.5	7.9	7.8	7.3	7.1	---	---	7.8	7.6
15	8.2	8.0	8.2	7.6	7.9	7.8	7.4	7.2	---	---	8.0	7.7
16	8.2	7.9	8.2	7.8	7.9	7.8	7.6	7.4	---	---	8.0	7.8
17	8.0	7.9	7.7	7.7	7.9	7.8	7.7	7.5	---	---	7.9	7.7
18	8.0	7.9	7.7	7.5	7.9	7.9	7.6	7.4	---	---	7.8	7.7
19	8.1	7.9	7.7	7.5	7.9	7.8	7.5	7.2	---	---	7.7	7.6
20	8.1	7.9	7.7	7.5	7.9	7.8	7.3	7.1	---	---	7.8	7.6
21	8.0	7.9	7.6	7.4	7.8	7.7	7.2	7.1	---	---	7.9	7.6
22	8.0	7.9	7.6	7.5	7.8	7.7	7.3	7.0	---	---	7.9	7.7
23	8.0	7.9	8.1	7.7	7.9	7.8	7.5	7.1	7.8	7.7	7.8	7.6
24	8.1	8.0	8.2	7.9	7.9	7.4	7.2	7.1	7.7	7.6	7.9	7.6
25	8.1	8.0	8.2	7.9	7.9	7.9	7.7	7.2	7.7	7.6	7.9	7.6
26	8.3	7.6	8.2	8.2	8.0	7.9	7.8	7.7	7.9	7.7	7.9	7.6
27	7.8	7.6	8.3	8.1	8.0	7.8	7.8	7.7	7.9	7.9	8.0	7.8
28	7.7	7.5	8.1	8.0	7.8	7.7	7.8	7.7	7.9	7.8	8.0	7.9
29	7.7	7.5	8.0	7.8	7.8	7.6	7.8	7.7	---	---	8.1	7.9
30	7.7	7.6	7.9	7.7	7.8	7.1	---	---	---	---	8.1	7.9
31	---	---	---	---	7.5	7.2	---	---	---	---	8.0	7.8
MONTH	8.3	7.5	8.3	7.4	8.2	7.1	7.8	6.7	7.9	7.6	8.1	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.8	8.2	7.8	9.0	8.6	8.2	7.7	7.9	7.7	8.2	7.9
2	8.0	7.8	8.1	7.9	8.8	8.5	8.0	7.7	7.9	7.7	8.3	8.0
3	7.8	7.7	8.2	8.0	8.8	8.3	7.7	7.6	7.8	7.6	8.4	8.1
4	7.8	7.6	8.1	8.0	9.2	8.5	7.9	7.6	7.9	7.6	8.5	8.2
5	7.8	7.6	8.0	7.9	8.9	8.6	7.8	7.7	8.2	7.8	8.5	7.9
6	7.8	7.6	8.0	7.8	8.7	8.3	8.1	7.6	8.4	8.0	8.1	7.7
7	7.9	7.7	8.0	7.9	8.8	8.4	8.0	7.8	8.4	8.1	7.9	7.5
8	7.9	7.8	8.0	7.8	8.6	8.2	8.2	7.9	8.3	8.2	7.8	7.5
9	7.9	7.8	8.0	7.8	8.8	8.2	8.2	8.1	8.1	7.5	7.9	7.5
10	8.1	7.8	8.0	7.8	8.5	8.4	8.2	7.8	7.7	7.5	8.1	7.6
11	8.0	7.9	8.0	7.8	8.4	7.8	7.9	7.7	7.6	7.5	7.9	7.6
12	8.0	7.9	8.0	7.8	8.3	7.8	7.8	7.8	7.6	7.5	7.6	7.5
13	8.1	7.8	8.2	7.9	8.9	8.2	8.2	7.8	7.5	7.4	7.6	7.5
14	8.0	7.8	8.3	7.9	8.7	8.3	8.0	7.7	7.5	7.4	7.6	7.5
15	8.1	7.9	8.6	8.0	8.8	8.2	8.1	7.8	7.6	7.3	7.7	7.5
16	8.1	7.9	8.7	8.1	8.8	8.4	8.0	7.5	7.6	7.5	7.6	7.4
17	8.1	7.9	8.8	8.3	9.0	8.5	8.4	7.8	7.7	7.6	7.5	7.3
18	8.1	7.9	8.9	8.5	8.8	8.6	8.5	8.1	7.9	7.6	7.5	7.4
19	8.1	7.9	8.8	8.5	8.8	8.4	8.5	8.3	7.9	7.6	7.5	7.3
20	8.1	7.9	8.7	8.2	8.9	8.6	8.6	8.0	7.9	7.7	7.5	7.4
21	8.1	7.9	8.2	8.0	9.0	8.3	8.5	8.3	7.9	7.7	7.6	7.4
22	8.1	7.9	8.2	8.0	8.9	8.5	8.5	7.9	8.0	7.8	7.6	7.4
23	8.1	7.8	8.3	8.0	9.0	8.5	8.2	7.4	8.0	7.8	7.7	7.5
24	8.0	7.8	8.2	8.0	9.0	8.7	7.9	7.5	8.0	7.7	7.6	7.5
25	7.9	7.7	8.2	7.9	8.7	8.4	7.9	7.6	8.1	7.5	7.6	7.5
26	7.8	7.5	8.5	7.9	8.9	8.2	8.4	7.9	8.2	7.8	7.6	7.4
27	8.1	7.5	9.0	8.1	8.7	8.4	8.3	8.1	8.3	7.8	7.6	7.4
28	8.1	7.8	9.2	8.7	8.5	8.1	8.5	8.1	8.4	7.9	7.6	7.5
29	8.1	7.5	9.1	8.8	8.3	7.8	8.4	7.8	8.4	8.1	7.7	7.6
30	8.0	7.6	8.8	8.6	7.8	7.5	7.8	7.6	8.4	8.1	7.7	7.5
31	---	---	8.9	8.6	---	---	7.8	7.6	8.3	7.8	---	---
MONTH	8.1	7.5	9.2	7.8	9.2	7.5	8.6	7.4	8.4	7.3	8.5	7.3
YEAR	9.2	6.7										

03234500 SCIOTO RIVER AT HIGBY, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	16.5	8.5	7.0	3.5	2.0	1.0	0.0	1.0	0.5	3.0	2.0
2	18.0	17.5	8.5	7.5	3.5	2.5	1.0	0.0	1.0	0.5	3.5	2.0
3	19.0	17.5	9.5	8.5	2.0	1.0	1.5	0.5	2.0	1.0	4.5	3.0
4	19.0	17.5	9.0	7.5	2.0	1.5	1.5	1.0	2.0	1.5	5.5	4.5
5	19.5	18.0	8.0	7.0	2.0	1.0	2.0	1.0	1.5	0.5	5.5	5.0
6	19.5	18.0	7.5	6.5	3.0	1.5	1.5	1.0	1.0	0.5	5.5	4.5
7	18.0	16.5	8.0	7.0	3.0	2.0	1.5	0.5	0.5	0.5	5.0	4.5
8	16.5	16.0	7.0	6.0	2.0	1.5	0.5	0.0	1.0	0.5	6.0	3.5
9	16.0	14.0	7.0	5.5	2.0	1.5	1.0	0.5	2.0	0.5	7.5	5.0
10	14.5	13.0	7.0	6.5	3.5	2.5	1.0	0.5	3.5	1.5	8.5	6.5
11	15.0	13.5	7.0	6.5	4.0	3.5	0.5	0.0	3.5	1.5	10.5	7.5
12	15.0	13.5	6.5	6.0	4.5	4.0	0.5	0.0	3.0	1.5	11.0	10.0
13	15.0	14.5	6.0	5.5	4.0	3.0	0.5	0.0	1.5	1.0	10.5	9.5
14	15.5	15.0	5.5	5.0	3.5	2.5	1.0	0.5	1.0	0.5	10.0	9.5
15	15.5	14.0	6.5	5.5	4.0	3.0	1.5	1.0	1.5	0.5	10.5	9.0
16	15.5	14.5	5.5	5.0	4.0	3.5	1.5	0.5	2.0	1.0	11.5	10.0
17	14.5	13.5	5.5	5.0	4.5	3.5	0.5	0.5	2.0	0.5	10.5	9.5
18	13.0	11.5	6.5	5.5	4.0	3.5	0.5	0.5	1.5	1.0	10.0	9.0
19	12.0	11.5	8.0	6.5	5.0	3.5	0.5	0.5	2.5	1.5	9.0	8.5
20	11.5	11.0	7.5	6.5	5.5	4.5	0.5	0.5	2.5	2.0	8.5	7.0
21	11.0	10.5	7.0	6.0	4.5	1.5	1.0	0.5	3.5	1.5	8.5	6.5
22	10.5	9.5	6.0	5.5	1.5	1.0	1.5	0.5	5.0	2.5	8.0	7.5
23	10.0	9.0	5.5	4.5	1.5	0.5	1.0	0.5	5.0	3.5	8.0	6.5
24	10.0	9.0	5.0	4.0	0.5	0.0	2.0	1.0	3.5	3.0	8.5	6.5
25	10.5	10.0	5.5	4.0	0.5	0.0	2.0	1.5	3.5	2.0	8.5	6.5
26	10.0	9.5	8.0	5.5	1.0	0.5	2.0	1.5	3.5	2.5	9.5	7.0
27	10.0	8.5	10.0	8.0	0.5	0.0	2.0	0.5	3.5	3.0	10.0	8.5
28	8.5	7.5	9.5	7.0	1.0	0.5	1.0	0.5	3.0	2.0	11.5	10.0
29	8.5	7.0	6.5	4.5	0.5	0.5	1.0	0.5	---	---	14.0	11.0
30	8.0	7.5	4.0	3.0	0.5	0.0	1.0	0.5	---	---	16.0	13.0
31	8.0	8.0	---	---	0.5	0.5	1.0	0.5	---	---	15.5	14.0
MONTH	19.5	7.0	10.0	3.0	5.5	0.0	2.0	0.0	5.0	0.5	16.0	2.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	12.5	17.5	14.5	26.0	24.5	27.0	24.5	26.0	24.0	28.0	26.5
2	14.0	13.0	19.0	16.5	25.5	23.5	27.0	24.5	26.5	24.5	27.5	26.0
3	13.5	12.5	19.0	17.5	24.5	22.0	26.0	24.5	27.0	25.0	27.0	25.0
4	12.5	12.0	19.0	18.0	25.0	22.0	26.5	24.5	27.5	25.0	27.0	25.0
5	12.5	11.0	20.0	18.0	24.5	23.0	27.5	26.0	28.5	26.5	27.0	26.0
6	10.5	9.0	20.0	19.0	24.0	23.0	29.0	27.0	29.0	27.0	26.5	25.0
7	9.5	8.0	19.5	18.0	23.0	21.0	29.5	28.0	29.0	27.5	25.5	24.0
8	11.0	8.5	19.0	17.5	20.5	19.0	30.0	28.5	28.5	26.5	25.0	24.0
9	11.0	9.0	18.0	16.5	21.0	18.5	30.0	28.5	27.0	26.0	26.0	24.0
10	12.0	9.5	17.5	15.5	22.0	19.0	29.0	26.5	26.5	26.0	26.5	24.5
11	14.5	11.5	18.0	15.0	22.0	20.0	27.0	25.5	26.5	25.5	24.5	22.5
12	16.0	13.0	18.5	16.0	22.0	19.5	26.5	26.5	26.0	24.5	23.0	21.5
13	16.5	14.0	20.5	17.5	23.5	21.0	28.5	26.5	24.5	24.0	23.0	21.5
14	17.0	14.5	21.5	19.0	24.0	23.0	28.5	25.0	26.0	24.0	23.0	22.0
15	17.0	16.0	22.5	19.5	25.5	23.0	29.0	27.5	27.0	25.0	22.5	21.0
16	18.0	15.5	23.0	20.0	26.0	24.0	29.0	25.0	27.5	25.5	22.5	21.0
17	17.5	16.5	23.0	21.0	27.5	25.0	29.0	26.0	27.0	26.0	23.5	22.0
18	19.0	16.5	24.5	22.0	27.5	26.0	30.5	28.0	26.0	24.0	24.5	22.0
19	19.0	17.5	25.5	23.0	27.0	25.5	31.0	29.5	25.5	23.0	24.0	23.5
20	19.5	18.0	26.0	23.5	27.0	25.5	31.0	29.5	25.0	23.0	23.5	22.5
21	20.0	18.5	26.0	24.0	27.0	25.0	30.5	28.5	24.5	23.0	22.5	21.0
22	20.0	19.0	25.5	24.5	26.0	23.5	29.5	26.5	25.5	23.0	21.5	20.0
23	19.5	19.0	26.0	24.5	24.5	22.5	29.0	26.0	25.5	23.5	22.0	20.0
24	19.5	17.5	26.0	25.0	25.5	24.0	27.5	26.0	25.0	24.0	22.0	21.0
25	17.5	15.5	26.0	25.0	26.0	24.5	27.5	27.0	24.0	22.0	22.0	21.0
26	15.5	14.0	26.0	23.5	27.5	25.0	27.0	25.5	24.0	22.0	23.5	21.5
27	16.5	13.0	26.5	24.0	27.0	26.0	26.5	25.0	26.0	23.5	22.5	21.0
28	16.5	14.5	26.5	24.0	27.0	25.5	26.0	24.0	27.5	25.0	21.5	20.0
29	16.0	12.5	26.5	25.0	27.5	25.5	26.0	24.5	27.5	26.0	20.5	19.0
30	16.5	13.5	26.5	24.0	26.5	25.0	26.0	24.0	27.5	26.0	21.0	19.5
31	---	---	26.5	25.0	---	---	26.0	25.0	28.0	25.5	---	---
MONTH	20.0	8.0	26.5	14.5	27.5	18.5	31.0	24.0	29.0	22.0	28.0	19.0
YEAR	31.0	0.0										

03234500 SCIOTO RIVER AT RIGBY, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.3	4.4	7.8	7.4	9.5	8.9	10.3	9.7	6.9	6.6	11.0	10.4
2	6.9	5.7	8.2	6.8	9.6	8.9	10.1	9.5	6.7	6.4	11.9	10.3
3	7.5	6.1	8.2	8.0	9.9	9.3	9.9	9.2	6.6	6.3	11.4	9.8
4	7.3	5.9	8.2	7.9	10.3	9.6	9.5	9.3	6.8	6.3	11.1	9.6
5	6.7	5.2	8.7	7.9	10.5	9.2	9.7	8.6	6.9	6.6	10.9	9.5
6	5.6	4.6	9.3	8.5	10.1	9.0	9.5	8.4	6.9	6.7	10.8	9.5
7	5.1	4.3	9.3	8.6	9.3	8.7	9.5	9.2	6.9	6.7	11.2	9.9
8	4.9	4.1	9.3	8.7	9.4	8.7	9.5	9.0	7.2	6.9	12.1	10.0
9	5.2	4.5	9.3	8.5	9.4	8.7	9.6	9.0	7.2	6.7	11.5	10.4
10	5.1	4.6	9.2	8.3	12.1	11.1	9.6	9.2	7.1	6.8	10.6	10.2
11	4.9	4.7	9.1	8.4	11.1	10.3	9.5	8.8	7.7	7.0	10.3	9.7
12	4.9	4.5	9.5	8.6	10.5	10.2	9.3	8.7	8.6	7.5	9.7	9.3
13	---	---	9.5	8.8	10.9	10.5	9.1	8.4	9.2	8.6	10.3	9.3
14	---	---	9.7	8.8	11.0	10.5	8.5	8.2	9.0	8.4	10.2	8.8
15	---	---	10.5	8.8	10.8	10.0	8.3	7.9	9.5	8.1	10.4	10.0
16	---	---	10.6	9.4	10.8	10.5	8.3	8.2	9.7	9.0	10.1	9.8
17	---	---	10.3	10.2	10.8	10.3	8.2	7.3	10.0	9.4	10.1	9.8
18	---	---	9.8	8.7	10.9	10.5	7.3	6.7	10.0	9.4	10.7	9.8
19	---	---	9.6	8.8	10.9	10.4	6.6	6.3	9.2	8.6	10.6	10.3
20	---	---	9.5	8.8	10.4	9.0	6.4	6.3	9.2	8.6	11.3	10.4
21	---	---	9.5	8.4	10.4	9.1	6.3	6.1	9.4	8.6	12.2	10.7
22	---	---	8.8	8.2	11.1	10.5	6.8	6.2	10.0	9.4	10.8	10.4
23	---	---	9.0	8.5	11.1	10.6	6.9	6.5	10.3	8.9	10.9	10.3
24	---	---	9.8	9.2	11.6	11.0	6.6	6.5	9.2	8.5	11.2	10.7
25	---	---	9.9	8.8	11.2	10.9	6.6	6.2	9.4	8.7	11.2	11.0
26	6.7	6.0	9.9	8.2	11.3	10.7	6.5	6.2	10.2	9.1	11.1	10.6
27	7.8	6.7	8.4	7.4	11.5	11.1	6.5	6.4	10.5	10.0	10.6	10.0
28	8.2	7.8	7.8	6.8	11.4	10.9	7.1	6.4	10.6	10.3	10.0	8.8
29	8.3	8.0	8.1	7.0	11.1	10.8	6.8	6.5	---	---	9.6	8.8
30	8.3	7.8	9.0	8.1	11.1	10.2	6.7	6.5	---	---	8.8	8.4
31	7.7	7.1	---	---	10.3	9.6	6.9	6.6	---	---	9.2	8.2
MONTH	8.3	4.1	10.6	6.8	12.1	8.7	10.3	6.1	10.6	6.3	12.2	8.2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.8	8.0	7.1	12.1	6.4	8.0	4.4	6.7	5.6	10.1	6.4
2	9.2	8.9	8.6	7.2	10.4	6.0	6.5	4.4	7.1	5.1	7.6	5.5
3	9.1	8.1	9.1	7.7	15.0	5.4	4.7	3.7	6.3	4.2	---	---
4	9.1	8.6	8.5	6.9	15.0	8.3	7.2	4.8	5.6	3.7	---	---
5	9.4	8.2	6.9	6.4	14.6	9.0	6.2	4.6	7.6	4.0	---	---
6	8.8	8.2	6.7	5.8	12.2	6.9	6.4	3.4	9.0	5.4	8.1	6.6
7	9.1	8.6	7.3	6.6	14.7	7.2	5.2	3.9	8.9	5.6	9.1	5.6
8	8.9	8.5	7.4	6.9	12.4	8.3	6.5	3.4	7.4	4.5	7.5	5.1
9	8.7	8.2	7.4	7.1	14.1	6.7	6.0	4.4	6.2	2.9	7.8	5.0
10	8.6	8.3	7.7	7.1	---	---	5.6	3.6	4.4	3.6	8.1	5.3
11	8.5	7.7	7.8	7.2	---	---	5.0	3.4	5.7	3.8	7.8	5.7
12	7.7	7.1	7.7	6.8	---	---	4.7	4.1	5.1	4.2	6.2	4.3
13	7.4	6.7	8.2	6.7	---	---	7.8	5.0	4.8	4.1	5.0	3.8
14	7.1	6.6	8.9	6.7	---	---	6.3	4.7	5.3	4.0	5.0	3.6
15	6.8	6.5	11.5	6.8	---	---	6.2	4.9	6.2	3.7	6.9	4.4
16	6.6	6.4	13.0	7.7	13.4	7.4	6.5	5.0	6.3	4.2	5.9	5.2
17	6.8	6.3	14.0	8.7	15.0	7.6	8.2	5.1	7.0	4.0	5.4	4.4
18	6.6	6.2	13.7	8.4	10.7	6.6	8.0	4.7	8.7	5.6	5.9	5.0
19	6.6	6.2	11.0	7.8	10.4	4.4	9.0	4.9	9.4	5.0	---	---
20	6.7	5.9	8.9	5.8	11.8	5.8	10.9	4.5	9.6	6.2	---	---
21	6.8	5.9	5.7	4.4	14.0	5.0	---	---	9.0	7.3	---	---
22	6.7	6.0	6.0	4.3	11.5	7.7	---	---	10.0	7.1	---	---
23	6.7	5.9	6.8	4.5	14.1	6.5	---	---	10.2	6.4	---	---
24	6.6	5.9	6.7	4.7	12.7	8.0	---	---	9.9	6.3	---	---
25	6.3	5.8	7.2	4.2	10.5	6.1	5.7	5.3	10.5	5.5	---	---
26	7.0	5.8	11.1	4.4	12.5	5.3	9.3	5.6	10.8	7.7	---	---
27	7.9	6.9	15.0	5.8	8.5	5.3	11.1	5.2	11.2	7.0	---	---
28	7.9	7.5	15.0	8.2	8.0	6.4	12.9	6.6	10.8	6.9	---	---
29	7.8	7.2	13.6	7.5	8.4	5.1	11.6	5.3	9.8	6.1	---	---
30	7.7	6.9	11.9	5.5	5.2	2.9	7.1	4.1	10.1	6.0	---	---
31	---	---	12.1	6.2	---	---	5.6	3.8	10.5	5.7	---	---
MONTH	9.5	5.8	15.0	4.2	15.0	2.9	12.9	3.4	11.2	2.9	10.1	3.6
YEAR	15.0	2.9										

03235500 TAR HOLLOW CREEK AT TAR HOLLOW STATE PARK, OH

LOCATION.--Lat 39°23'22", long 82°45'03", in NE 1/4 sec. 36, T.10 N., R.20 W., Ross County, Hydrologic Unit 05060002, in Tar Hollow State Park, on left bank 2.0 mi (3.2 km) upstream from mouth and 5.2 mi (8.4 km) south of Adelphi.

DRAINAGE AREA.--1.35 mi² (3.50 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder and V-notch weir. Datum of gage is 793.63 ft (241.898 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--31 years, 1.25 ft³/s (0.0354 m³/s), 12.57 in/yr (319 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 957 ft³/s (27.1 m³/s) May 24, 1968, gage height, 5.66 ft (1.725 m) (in gage well), 5.84 ft (1.780 m) (from floodmark), from rating curve extended above 92 ft³/s (2.61 m³/s) on basis of slope-area measurements at gage height 5.21 ft (1.588 m) and at peak flow; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38.2 ft³/s (1.081 m³/s) Mar. 12, gage height, 2.77 ft (0.844 m), no peak above base of 50 ft³/s (1.42 m³/s); minimum, no flow Jan. 20 to Feb. 11, June 26, 27, July 8, and Aug. 28-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.75	.14	.05	.00	1.4	1.3	.75	.02	.44	.28	.01
2	.04	.54	.14	.04	.00	1.4	9.1	.75	.01	.20	.20	.28
3	.05	.44	.14	.04	.00	1.4	9.5	.75	.01	.10	.10	.36
4	.06	.36	.14	.04	.00	11	6.5	2.2	.01	.03	.06	.20
5	.06	.28	.14	.03	.00	6.5	8.3	3.4	.01	.03	.03	.14
6	.04	.20	.14	.03	.00	3.6	5.3	2.9	.06	.02	.02	.14
7	.04	.20	.44	.03	.00	2.9	4.2	3.9	.02	.01	.02	.10
8	.04	.20	.75	.03	.00	2.2	3.4	3.6	.02	.01	.02	.10
9	.72	.20	.64	.02	.00	2.0	2.4	2.4	.03	.03	.02	.06
10	.87	.20	.53	.02	.00	2.0	2.2	1.8	.03	.06	.02	.06
11	.54	.20	.50	.02	.02	1.4	1.8	1.4	.03	.75	.14	.03
12	.36	.14	.48	.02	2.4	5.7	1.6	1.0	.03	.87	.75	.03
13	.28	.14	.46	.02	4.6	13	1.4	.87	.01	1.0	.53	.03
14	.20	.10	.43	.01	3.4	4.9	1.3	.75	.02	1.1	.28	.03
15	.28	.10	.41	.01	2.7	3.4	1.1	.53	.02	.36	.14	.10
16	.28	.10	.39	.01	2.0	2.6	1.0	.44	.02	.20	.10	3.6
17	.20	.10	.37	.01	1.6	2.2	1.0	.36	.02	.20	.10	.87
18	.20	.10	.34	.01	1.3	14	.87	.36	.02	.10	.10	.44
19	.20	.10	.32	.01	1.1	5.3	.87	.28	.02	.06	.06	.28
20	.10	.10	.30	.00	.90	3.1	.75	.20	.02	.03	.02	.14
21	.20	.10	.28	.00	.85	2.2	.75	.20	.01	.28	.02	.10
22	.28	.10	.27	.00	.86	2.6	.75	.14	.01	.75	.03	.06
23	.20	.06	.24	.00	.95	2.2	.75	.14	.01	.20	.03	.06
24	.24	.14	.20	.00	3.9	1.8	.75	.14	.01	.14	.03	.06
25	.75	.14	.17	.00	4.6	1.4	.64	.14	.01	.14	.03	.03
26	.36	.14	.15	.00	3.1	1.3	.53	.10	.00	.14	.03	.10
27	.32	.20	.13	.00	2.4	1.1	.53	.10	.00	.03	.02	.06
28	.36	.20	.11	.00	1.8	1.1	.75	.06	.01	.02	.01	.06
29	.28	.28	.09	.00	---	1.0	1.0	.03	.01	.03	.01	.03
30	.36	.20	.08	.00	---	1.0	.87	.02	.03	.03	.01	.03
31	.93	---	.07	.00	---	1.1	---	.02	---	.06	.01	---
TOTAL	9.94	6.11	8.99	.45	38.48	106.8	71.21	29.73	.53	7.50	3.22	7.59
MEAN	.32	.20	.29	.015	1.37	3.45	2.37	.96	.018	.24	.10	.25
MAX	1.1	.75	.75	.05	4.6	14	9.5	3.9	.06	1.1	.75	3.6
MIN	.04	.06	.07	.00	.00	1.0	.53	.02	.00	.01	.01	.01
CFSM	.24	.15	.22	.01	1.02	2.56	1.76	.71	.01	.18	.07	.19
IN.	.27	.17	.25	.01	1.06	2.94	1.96	.82	.01	.21	.09	.21

CAL YR 1976 TOTAL 325.07 MEAN .89 MAX 15 MIN .00 CFSM .66 IN 8.96
WTR YR 1977 TOTAL 290.55 MEAN .80 MAX 14 MIN .00 CFSM .59 IN 8.00

03235500 TAR HOLLOW CREEK AT TAR HOLLOW STATE PARK, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAR 31...	1330	.77	110	6.8	9.0	10.4	90	.4	37	27	7.1	4.7
JUL 19...	1330	.05	160	7.0	23.0	7.0	80	.6	52	19	10	6.5

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 31...	3.2	1.6	12	0	10	3.0	29	2.1	.0	10	64	.22
JUL 19...	4.0	2.5	40	0	33	6.4	27	2.3	.0	14	86	.24

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 31...	.00	.00	.00	0	<10	0	10	0	20	.4	10	--
JUL 19...	.00	.01	.01	0	10	3	10	0	0	.0	10	4.0

RESERVOIRS IN SCIOTO RIVER BASIN

03220500 O'SHAUGHNESSY RESERVOIR NEAR DUBLIN.--Lat 40°09'14", long 83°07'33", Delaware County, Hydrologic Unit 05060001, in gate house of dam on Scioto River, 4.0 mi (6.4 km) north of Dublin. DRAINAGE AREA, 979 mi^2 (2,536 km^2). PERIOD OF RECORD, October 1924 to current year. GAGE, water-stage recorder. Monthend contents only for some periods published in WSP 1305. Datum of gage is at mean sea level (levels by city of Columbus). Prior to Dec. 2, 1940, nonrecording gage at same site and datum.

Reservoir is formed by concrete dam; dam completed and storage began in 1924. Usable capacity, 14,500 acre-ft (5.55 hm^3), between elevations, 789.5 ft (240.64 m) (sill of outlet gate), and 845 ft (258 m) (crest of spillway), based on survey made in 1942. Flashboards installed May 9, 1945, additional capacity, 2,480 acre-ft (3.06 hm^3), between elevations 845 ft (258 m) (crest of spillway), and 847.9 ft (258.44 m) (crest of flashboards). Dead storage below elevation 789.5 ft (240.64 m), 55 acre-ft (67,800 m^3). Figures given herein represent usable contents. Water used for municipal supply of city of Columbus and recreational purposes. Capacity table computed from data furnished by city of Columbus.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 24,240 acre-ft (29.9 hm^3) Jan. 22, 1959, elevation, 854.40 ft (260.421 m); minimum, 43 acre-ft (53,000 m^3) Feb. 11, 1945, elevation, 791.97 ft (241.392 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 19,410 acre-ft (23.9 hm^3) Apr. 3, elevation, 850.29 ft (259.168 m); minimum, 11,050 acre-ft (13.6 hm^3) Feb. 12, elevation, 840.09 ft (256.059 m).

03221500 GRIGGS RESERVOIR NEAR COLUMBUS.--Lat 40°00'54", long 83°05'38", Franklin County, Hydrologic Unit 05060001, on left abutment of dam on Scioto River, 6.2 mi (10.0 km) northwest of State Capitol building in Columbus, and 6.5 mi (10.5 km) upstream from Olentangy River. DRAINAGE AREA, 1,044 mi^2 (2,704 km^2). PERIOD OF RECORD, January 1921 to current year. GAGE, water-stage recorder. Monthend contents only for some periods, published in WSP 1305. Daily readings have been obtained by city of Columbus, Division of Water, since 1908. Datum of gage is 680.38 ft (207.380 m) above mean sea level, adjustment of 1912 (levels by city of Columbus); gage readings have been reduced to elevations above mean sea level. Prior to Oct. 4, 1940 nonrecording gage at same site and datum.

Reservoir formed by concrete dam; dam completed and storage began in 1905. Usable capacity, 3,700 acre-ft (4.56 hm^3) between elevations, 735.4 ft (224.15 m) (lowest outlets), and 753.4 ft (229.64 m) (crest of spillway), based on survey made in 1935. Flashboards installed July 28, 1945, additional capacity, 750 acre-ft (925,000 m^3), between elevations, 753.4 ft (229.64 m) (crest of spillway) and 755.6 ft (230.31 m) (crest of flashboards). Dead storage below elevation, 735.4 ft (224.15 m), 239 acre-ft (295,000 m^3). Figures given herein represent usable contents. Water is used for municipal supply of city of Columbus and recreational purposes. Capacity table computed from data furnished by city of Columbus.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 7,490 acre-ft (9.24 hm^3) Jan. 22, 1959, elevation, 763.91 ft (232.840 m); minimum, 38 acre-ft (46,900 m^3) Jan. 24, 1945, elevation, 735.78 ft (224.266 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 5,460 acre-ft (6.73 hm^3) Apr. 2, elevation, 758.43 ft (231.169 m); minimum, 2,690 acre-ft (3.32 hm^3) Feb. 22, elevation, 750.31 ft (228.694 m).

03225000 DELAWARE LAKE NEAR DELAWARE.--Lat 40°21'31", long 83°04'10", in T.5 S., R.19 W., Delaware County, Hydrologic Unit 05060001, in gate house of dam on Olentangy River, 4.0 mi (6.4 km) north of Delaware. DRAINAGE AREA, 386 mi^2 (1,000 km^2). PERIOD OF RECORD, March 1951 to current year. Prior to October 1971 published as Delaware Reservoir. GAGE, water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum (levels by Corps of Engineers).

Lake is formed by earthfill dam with concrete spillway; storage began Mar. 20, 1951. Usable capacity 24,500 acre-ft (30.2 hm^3) between elevation, 884.0 ft (269.44 m) (lowest outlet) and 922.0 ft (281.03 m) (crest of spillway). Additional flood-control storage above elevation 922.0 ft (281.03 m) by taintor gates on spillway, 107,500 acre-ft (133 hm^3). Normal conservation pool storage 8,400 acre-ft (10.4 hm^3), elevation, 910.0 ft (277.37 m) winter, and 14,000 acre-ft (17.3 hm^3), elevation, 915.0 ft (278.89 m) summer. No dead storage. Figures given herein represent usable contents. Lake is used primarily for flood control although the conservation pool is operated to augment low flow for water supply, pollution abatement, and for recreation and wildlife conservation purposes. Outflow is controlled mostly by operation of gates in sluiceways through dam, but above spillway level, taintor gates on spillway can be used. Capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 113,000 acre-ft (139 hm^3) Jan. 25, 1959, elevation, 944.75 ft (287.960 m); minimum, 2,070 acre-ft (2.55 hm^3) Feb. 13, 1970, elevation, 899.43 ft (274.146 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 40,600 acre-ft (50.1 hm^3) Apr. 4, elevation, 928.30 ft (282.946 m); minimum, 8,030 acre-ft (9.90 hm^3) Mar. 25, elevation, 909.59 ft (277.243 m).

03228400 HOOVER RESERVOIR AT CENTRAL COLLEGE.--Lat 40°06'30", long 82°52'59", in T.2 N., R.17 W., Franklin County, Hydrologic Unit 05060001, in gate house of dam on Big Walnut Creek, 0.5 mi (0.8 km) northeast of Central College, and 12 mi (19 km) northeast of Columbus. DRAINAGE AREA, 190 mi^2 (492 km^2). PERIOD OF RECORD, March 1955 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 10, 1956, nonrecording gage at same site and datum.

Reservoir formed by earthfill dam with concrete spillway; dam completed in 1954 and storage began in March 1955. Usable capacity, 60,130 acre-ft (74.1 hm^3) between elevations 830.0 ft (252.98 m) (lowest outlet), and 890.0 ft (271.27 m) (crest of spillway). Additional flood-control storage above elevation 890.0 ft (271.27 m) by bascule gates installed in May 1970, 25,750 acre-ft (31.7 hm^3). Dead storage below elevation 830.0 ft (252.98 m), 214 acre-ft (264,000 m^3). Figures given herein represent usable contents. Reservoir is used for municipal supply of city of Columbus and for recreational purposes. Outflow is controlled mostly by operation of valves in tunnel through dam, but above spillway level bascule gates can be used. Capacity table computed from data furnished by city of Columbus.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 86,810 acre-ft (107 km^3) Feb. 24, 1975, elevation, 898.26 ft (273.790 m); minimum, 19,010 acre-ft (23.4 hm^3) Mar. 1, 1964, elevation, 868.58 ft (264.743 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 70,110 acre-ft (86.4 hm^3) Apr. 3, elevation, 893.45 ft (272.324 m); minimum, 25,760 acre-ft (31.8 hm^3) Feb. 13, elevation, 873.98 ft (266.389 m).

RESERVOIRS IN SCIOTO RIVER BASIN--Continued

03228804 **ALUM CREEK LAKE NEAR WORTHINGTON.**--Lat 40°11'03", long 82°57'50", Delaware County, Hydrologic Unit 05060001, in outlet structure of dam on Alum Creek, 180 ft (54.9 m) upstream from Lewis Center Road, 0.3 mi (0.48 km) west of Africa, 4.2 mi (6.84 km) northwest of Westerville, and 7.0 mi (11.3 km) north of Worthington. DRAINAGE AREA, 122 mi^2 (316 km^2). PERIOD OF RECORD, January 1975 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Lake formed by earthfill dam with concrete gravity channel section; dam completed and storage began in 1974, station established Jan. 16, 1975. Usable capacity, 48,940 acre-ft (60.3 hm^3) between elevation 835.0 ft (254.51 m) (lowest outlet) and 878.0 ft (267.61 m) (crest of spillway). Additional flood-control storage above 878.0 ft (267.61 m) by taintor gates on spillway 85,000 acre-ft (104.8 hm^3). Normal conservation pool storage 71,120 acre-ft (87.7 hm^3) elevation 885.0 ft (269.75 m) winter, and 80,860 acre-ft (99.7 hm^3) elevation 888.0 ft (270.66 m) summer. Dead storage 879 acre-ft (1.08 hm^3) below 835.0 ft (254.51 m). Figures given herewith represent usable contents. Lake is used for flood control, recreation, water supply, and wild life conservation purposes. Outflow is controlled mostly by operation of gates in sluiceway through dam, but above spillway level, taintor gates can be used. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 83,020 acre-ft (102 hm^3) Feb. 23, 1976, elevation, 888.63 ft (270.854 m); minimum, 5,860 acre-ft (7.23 hm^3) Jan. 25, 1975, elevation, 849.59 ft (258.955 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 78,850 acre-ft (97.2 hm^3) Oct. 1, elevation, 887.40 ft (270.480 m); minimum, 54,960 acre-ft (67.8 hm^3) Sept. 13, elevation, 879.35 ft (268.026 m).

03230890 **DEER CREEK LAKE NEAR PANCOASTBURG.**--Lat 39°37'20", long 83°12'58", Pickaway County, Hydrologic Unit 05060002, in outlet tower of dam on Deer Creek, 1,000 ft (305 m) upstream from Crownover Mill Road, and 2.8 mi (4.5 km) east of Pancoastburg. DRAINAGE AREA, 277 mi^2 (717 km^2). PERIOD OF RECORD, April 1968 to current year. Prior to October 1971 published as Deer Creek Reservoir. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Lake formed by earthfill dam with concrete spillway; dam completed in 1968 and storage began April 1, 1968. Usable capacity 26,440 acre-ft (32.6 hm^3) between elevation 772.0 ft (235.31 m) (lowest outlet) and 814.0 ft (248.11 m) crest of spillway. Additional flood control storage above 814.0 ft (248.11 m) by taintor gates on spillway 76,100 acre-ft (93.8 hm^3). Normal conservation pool storage 6,420 acre-ft (7.92 hm^3), elevation, 796.0 ft (242.62 m) winter, and 21,030 acre-ft (25.9 hm^3), elevation, 810.0 ft (246.89 m) summer. Dead storage 2 acre-ft (2,470 m^3) below 772.0 ft (235.31 m). Figures given herein represent usable contents. Lake is used primarily for flood control although the conservation pool is operated to augment low flow for water supply, pollution abatement and for recreation and wildlife conservation purposes. Outflow is controlled mostly by operation of gates in sluiceways through dam, but above spillway level, taintor gates on spillway can be used. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 71,830 acre-ft (88.6 hm^3) May 31, 1968, elevation, 835.25 ft (254.584 m); minimum, 1,140 acre-ft (1.41 hm^3) Jan. 8, 1970, elevation, 784.75 ft (239.192 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 22,780 acre-ft (28.1 hm^3) Aug. 3, elevation, 811.34 ft (247.296 m); minimum, 6,440 acre-ft (7.94 hm^3) Nov. 29, elevation, 796.02 ft (242.627 m).

03232460 **PAINT CREEK LAKE NEAR BAINBRIDGE.**--Lat 39°15'09", long 83°20'59", Highland County, Hydrologic Unit 05060003, in outlet structure of dam on Paint Creek, 1.9 mi (3.1 km) upstream from Rocky Fork, and 4.5 mi (7.2 km) northwest of Bainbridge. DRAINAGE AREA, 570 mi^2 (1,476 km^2). PERIOD OF RECORD, April 1974 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Lake is formed by earth and rock embankment dam with concrete spillway. Dam completed in 1974 and storage began April 8, 1974. Usable capacity 37,420 acre-ft (46.1 hm^3) between elevation 750.0 ft (228.60 m) (lowest outlet), and 810.0 ft (246.89 m) (crest of spillway). Additional flood control storage above elevation 810.0 ft (246.89 m) by three taintor gates on spillway, 107,600 acre-ft (132.67 hm^3). Seasonal pool storage 20,310 acre-ft (25.0 hm^3) elevation, 798.0 ft (243.23 m). Dead storage 5 acre-ft (6.170 m) below elevation 750.0 ft (228.60 m). Figures given herein represent usable contents. Lake is used primarily for flood control although seasonal pool is used for water quality control, water supply, recreation and wildlife conservation purposes. Outflow is controlled mostly by operation of gates in sluiceway through dam but above spillway level taintor gates on spillway can be used. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 74,580 acre-ft (92.0 hm^3) Feb. 28, 1975, elevation, 826.40 ft (251.887 m); minimum since initial filling was completed on May 6, 1974, 8,930 acre-ft (11.0 hm^3) Mar. 28, 1975, elevation, 786.03 ft (239.582 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 23,140 acre-ft (28.5 hm^3) Apr. 8, elevation, 800.30 ft (243.931 m); minimum, 9,590 acre-ft (11.8 hm^3) Mar. 28, elevation, 786.94 ft (239.859 m).

RESERVOIRS IN SCIOTO RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	03220500	O'SHAUGHNESSY RESERVOIR		03221500	GRIGGS RESERVOIR		03225000	DELAWARE LAKE	
Sept. 30.....	848.03	17090	--	755.47	4400	--	915.22	14290	--
Oct. 31.....	848.05	17110	+20	755.55	4430	+30	915.12	14160	-130
Nov. 30.....	848.03	17090	-20	755.39	4370	-60	910.14	8540	-5620
Dec. 31.....	848.02	17080	-10	753.85	3850	-520	910.06	8460	-80
CAL YR 1976	--	--	-1370	--	--	-1120	--	--	-3390
Jan. 31.....	846.54	15750	-1330	751.65	3100	-750	910.08	8480	+20
Feb. 28.....	847.91	16980	+1230	756.16	4640	-1540	911.15	9550	+1070
Mar. 31.....	848.61	17670	+690	756.16	4640	0	910.45	8850	-700
Apr. 30.....	848.37	17430	-240	755.92	4550	-90	914.89	13860	+5010
May 31.....	848.09	17150	-280	755.46	4400	-150	915.27	14350	+490
June 30.....	848.14	17200	+50	755.58	4440	+40	915.25	14320	-30
July 31.....	848.02	17080	-120	755.30	4340	-100	915.12	14160	-160
Aug. 31.....	847.85	16930	-150	753.54	3740	-600	914.08	12800	-1360
Sept. 30.....	848.02	17080	+150	755.36	4360	+620	914.84	13790	+990
WTR YR 1977	--	--	-10	--	--	-40	--	--	-500
	03228400	HOOVER RESERVOIR		03228804	ALUM CREEK LAKE		03230890	DEER CREEK LAKE	
Sept. 30.....	886.60	51160	--	887.40	78850	--	806.59	16870	--
Oct. 31.....	883.50	43520	-7640	886.27	75150	-3700	802.17	11990	-4880
Nov. 30.....	881.40	38940	-4580	885.07	71340	-3810	796.04	6450	-5540
Dec. 31.....	879.24	34740	-4210	881.67	61280	-10060	796.23	6590	+140
CAL YR 1976	--	--	-7790	--	--	+3320	--	--	-410
Jan. 31.....	875.63	28380	-6360	879.91	56440	-4840	796.25	6610	-20
Feb. 28.....	882.13	40460	+12080	880.88	59070	+2630	796.67	6930	+320
Mar. 31.....	889.93	59940	+19480	880.38	57710	-1360	801.36	11160	+4230
Apr. 30.....	892.26	66440	+6500	880.35	57630	-80	810.62	21830	+10670
May 31.....	891.2[illegible]	63670	-2770	879.80	56150	-1480	810.38	21520	-310
June 30.....	889.1[illegible]	57920	-5750	879.87	56330	+180	810.89	22180	+660
July 31.....	887.00	52180	-5740	879.72	55940	-390	811.32	22750	+570
Aug. 31.....	884.32	45450	-6730	879.57	55540	-400	811.01	22340	-410
Sept. 30.....	881.40	38940	-6510	879.37	55010	-530	802.56	12400	-9940
WTR YR 1977	--	--	-12220	--	--	-23840	--	--	-4470
	03232460	PAINT CREEK LAKE							
Sept. 30.....	798.18	20530	--						
Oct. 31.....	798.73	21190	+660						
Nov. 30.....	787.71	10180	-11010						
Dec. 31.....	787.52	10040	-140						
CAL YR 1976	--	--	-2020						
Jan. 31.....	787.56	10070	+30						
Feb. 28.....	787.82	10270	+200						
Mar. 31.....	788.15	10530	+260						
Apr. 30.....	798.64	21080	+10550						
May 31.....	798.57	21000	-80						
June 30.....	798.35	20730	-270						
July 31.....	798.06	20380	-350						
Aug. 31.....	798.53	20950	+570						
Sept. 30.....	797.91	20200	-750						
WTR YR 1977	--	--	-330						

03237280 UPPER TWIN CREEK AT MCGAW, OH

(HYDROLOGIC BENCH-MARK STATION)

LOCATION.--Lat 38°38'37", long 83°12'57", Scioto County, Hydrologic Unit 05090201, on right bank, 0.3 mi (0.5 km) downstream from Brown Run, 0.3 mi (0.5 km) upstream from Tucker Run, 0.7 mi (1.1 km) upstream from bridge on U.S. Highway 52 at McGaw, 2.7 mi (4.3 km) northeast of Buena Vista, and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--12.2 mi² (31.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 543.41 ft (165.631 m) above mean sea level, Ohio Department of Highways bench mark. Prior to July 21, 1972 at site 0.7 mi (1.1 km) downstream at datum 23.41 ft (7.135 m) lower.

REMARKS.--Records fair except those above 250 cfs, which are poor.

AVERAGE DISCHARGE.--14 years, 12.9 ft³/s (0.365 m³/s), 14.36 in/yr (365 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft³/s (99.1 m³/s) Mar. 4, 1964, gage height, 9.7 ft (2.96 m), in gage well, 10.2 ft (3.11 m), from outside highwater mark from rating curve extended above 300 ft³/s on basis of slope-area measurement of peak measurement of peak flow; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 3, 1960 reached a stage of 11.62 ft (3.542 m), discharge, 7,230 ft³/s (205 m³/s), on basis of contracted-opening and flow over road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 12	2215	*789	22.3	*5.00	1.524	Aug. 14	0615	634	18.0	4.55	1.387

Minimum discharge, 0.15 ft³/s (0.004 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	29	1.2	3.1	2.0	14	4.9	7.2	.38	93	.49	.62
2	5.6	18	1.1	2.9	2.0	12	23	6.0	.29	14	.49	.49
3	3.3	14	1.0	2.8	2.0	14	58	6.3	.22	4.0	.49	.38
4	1.9	10	.98	2.7	2.0	142	51	5.6	.15	1.6	.38	.38
5	1.3	7.9	.94	2.6	2.1	56	79	22	.15	.92	.38	.29
6	.92	6.5	.92	2.5	2.2	31	52	66	.15	.76	.38	.29
7	.76	5.6	56	2.4	2.3	21	40	69	.08	.62	.38	.29
8	.76	4.4	35	2.3	2.6	17	28	33	.15	.62	.49	.22
9	28	3.7	20	2.3	3.0	11	22	18	3.3	.49	.62	.22
10	19	3.7	15	2.3	4.0	13	18	12	.92	.49	36	.22
11	9.4	2.9	15	2.2	7.9	11	15	8.4	.62	.49	12	.22
12	6.0	2.2	15	2.2	95	79	13	6.0	.49	.76	13	.22
13	3.7	1.6	13	2.2	85	131	11	4.4	.38	.62	15	.22
14	2.5	1.3	11	2.1	37	41	9.0	2.9	.38	.49	130	.22
15	1.9	1.3	10	2.1	26	25	7.4	1.9	.29	.49	12	.22
16	1.9	1.3	8.9	2.1	22	18	6.2	1.1	.22	.49	3.7	1.6
17	1.6	1.1	7.9	2.1	20	15	5.6	.92	.15	.49	1.9	1.3
18	1.1	1.1	6.5	2.1	19	58	5.1	.76	.15	.49	1.3	.92
19	1.1	1.1	5.6	2.1	17	38	5.1	.76	.22	.38	.92	.76
20	1.1	1.1	6.0	2.1	16	27	4.6	.62	.22	.38	.76	.62
21	2.2	1.1	5.6	2.1	14	20	4.1	.62	.49	.38	.62	.49
22	2.5	1.1	4.4	2.1	26	19	3.9	.49	.49	.38	.49	.38
23	2.2	.92	4.8	2.1	61	16	4.4	.49	.49	.38	.38	.29
24	18	.92	3.7	2.1	62	14	4.3	.49	.49	.38	2.9	.29
25	33	.76	4.0	2.1	35	12	4.2	.49	.62	.38	1.9	.29
26	25	.76	4.8	2.1	25	10	3.6	.38	.76	.38	1.1	.29
27	15	.92	4.4	2.1	21	9.1	2.9	.38	.62	.38	.92	.22
28	11	1.1	4.8	2.1	16	8.9	4.4	.29	5.6	.38	.76	.22
29	7.9	1.3	4.0	2.1	---	8.2	14	.29	27	.49	.62	.22
30	8.9	1.2	3.7	2.1	---	6.9	9.2	.38	12	.49	.76	.22
31	53	---	3.3	2.0	---	6.0	---	.38	---	.49	.76	---
TOTAL	277.04	127.88	278.54	70.2	629.1	904.1	512.9	277.54	57.47	126.09	241.89	12.61
MEAN	8.94	4.26	8.99	2.26	22.5	29.2	17.1	8.95	1.92	4.07	7.80	.42
MAX	53	29	56	3.1	95	142	79	69	27	93	130	1.6
MIN	.76	.76	.92	2.0	2.0	6.0	2.9	.29	.08	.38	.38	.22
CFSM	.70	.33	.70	.18	1.76	2.28	1.34	.70	.15	.32	.61	.03
IN.	.81	.37	.81	.20	1.83	2.63	1.49	.81	.17	.37	.70	.04

CAL YR 1976 TOTAL 3809.79 MEAN 10.4 MAX 222 MIN .22 CFSM .81 IN 11.07
WTR YR 1977 TOTAL 3515.36 MEAN 9.63 MAX 142 MIN .08 CFSM .75 IN 10.22

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03237280 UPPER TWIN CREEK AT MCGAW, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF RECORD.--
WATER TEMPERATURES: Water years 1963-66, 1967-70, July 1972 to current year.
SUSPENDED SEDIMENT DISCHARGE: Water years 1964-69 (periodic), 1969 to 1973 (daily), 1974 to current year (periodic).

INSTRUMENTATION.--Water temperature recorder since July 1972.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 36.0°C July 20, 21, 1977; minimum, 0.0°C on several days during 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 36.0°C July 20, 21; minimum, 0.5°C Dec. 23-25, 27, 30, 31, Jan. 1-16, Feb. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)
OCT										
12...	1230	5.7	110	6.2	15.0	9.0	88	1400	41	99
NOV										
10...	1330	3.7	80	6.9	8.5	11.2	96	1100	10	11
DEC										
02...	1500	1.1	110	6.7	3.0	12.2	90	54	2	6
JAN										
26...	1230	--	100	6.7	1.0	12.5	88	32	4	250
FEB										
24...	1230	62	75	6.5	4.5	11.0	85	140	25	1300
MAR										
09...	1430	14	85	6.8	8.5	11.2	96	30	3	37
APR										
19...	1100	5.8	100	6.8	16.5	10.4	110	870	19	18
MAY										
03...	1400	6.6	105	7.0	17.0	10.0	100	350	22	36
JUN										
14...	1130	.41	125	6.6	21.5	8.9	100	480	160	150
JUL										
14...	1230	.46	120	6.8	30.0	7.7	100	490	80	270
AUG										
10...	1130	.61	135	7.5	25.5	8.5	100	430	83	400
SEP										
20...	1100	.66	125	6.8	21.0	8.8	98	380	40	700

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT									
12...	34	18	5.8	4.8	3.1	2.0	20	0	16
NOV									
10...	30	15	5.3	4.1	2.9	1.8	18	0	15
DEC									
02...	37	23	5.9	5.5	3.2	1.7	18	0	15
JAN									
26...	32	17	5.8	4.2	3.9	1.5	18	0	15
FEB									
24...	24	17	3.6	3.6	1.9	1.6	8	0	7
MAR									
09...	29	17	4.7	4.1	2.6	1.7	14	0	11
APR									
19...	36	23	5.0	5.7	3.1	2.2	16	0	13
MAY									
03...	34	26	5.7	4.8	3.2	2.3	10	0	8
JUN									
14...	40	27	6.7	5.7	3.9	2.5	16	0	13
JUL									
14...	40	22	6.8	5.5	3.9	2.7	21	0	17
AUG									
10...	44	29	8.0	5.9	4.4	3.0	19	0	16
SEP									
20...	42	26	7.3	5.8	4.0	2.7	20	0	16

03237280 UPPER TWIN CREEK AT MCGAW, OH--Continued

WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977--Continued

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT									
12...	20	26	1.6	.1	11	68	64	.55	.02
NOV									
10...	3.6	23	2.2	.1	9.6	56	58	.08	.02
DEC									
02...	5.7	29	.4	.1	8.2	61	63	.13	.03
JAN									
26...	5.7	28	2.6	.1	8.1	60	63	.19	.02
FEB									
24...	4.0	20	1.6	.0	8.3	58	45	.33	.01
MAR									
09...	3.6	23	1.5	.0	9.5	48	54	.20	.01
APR									
19...	4.1	27	1.5	.0	11	73	63	.13	.00
MAY									
03...	1.6	26	1.4	.0	9.9	68	58	.07	.00
JUN									
14...	6.4	34	2.4	.0	10	82	73	.21	.00
JUL									
14...	5.3	30	3.6	.0	11	68	74	.20	.00
AUG									
10...	1.0	31	2.5	.0	11	68	75	.24	.01
SEP									
20...	5.1	30	3.6	.0	11	76	74	.35	.01

RADIOCHEMICAL ANALYSES

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)
OCT											
12...	1230	5.7	62	<1	<.6	<.4	2.5	<.4	2.0	<.4	.10
NOV											
10...	1330	3.7	--	--	--	--	--	--	--	--	--
DEC											
02...	1500	1.1	--	--	--	--	--	--	--	--	--
FEB											
24...	1230	62	--	--	--	--	--	--	--	--	--
MAR											
09...	1430	14	--	--	--	--	--	--	--	--	--
APR											
19...	1100	5.8	--	--	--	--	--	--	--	--	--
MAY											
03...	1400	6.6	--	--	--	--	--	--	--	--	--
JUN											
14...	1130	.41	--	--	--	--	--	--	--	--	--
JUL											
14...	1230	.46	--	--	--	--	--	--	--	--	--
AUG											
10...	1130	.61	--	--	--	--	--	--	--	--	--
SEP											
20...	1100	.66	--	--	--	--	--	--	--	--	--

03237280 UPPER TWIN CREEK AT MCGAW, OH--Continued

WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977--Continued

ANAYLSES OF MINOR ELEMENTS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)
OCT							
12...	1230	5.7	0	100	0	<10	0
NOV							
10...	1330	3.7	--	--	--	--	--
DEC							
02...	1500	1.1	--	--	--	--	--
FEB							
24...	1230	62	--	--	--	--	--
MAR							
09...	1430	14	--	--	--	--	--
APR							
19...	1100	5.8	1	0	0	<10	0
MAY							
03...	1400	6.6	--	--	--	--	--
JUN							
14...	1130	.41	--	--	--	--	--
JUL							
14...	1230	.46	--	--	--	--	--
AUG							
10...	1130	.61	--	--	--	--	--
SEP							
20...	1100	.66	--	--	--	--	--

DATE	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT						
12...	0	10	<.5	0	0	0
NOV						
10...	--	--	--	--	--	--
DEC						
02...	--	--	--	--	--	--
FEB						
24...	--	--	--	--	--	--
MAR						
09...	--	--	--	--	--	--
APR						
19...	0	0	.0	0	0	10
MAY						
03...	--	--	--	--	--	--
JUN						
14...	--	--	--	--	--	--
JUL						
14...	--	--	--	--	--	--
AUG						
10...	--	--	--	--	--	--
SEP						
20...	--	--	--	--	--	--

UPPER TWIN CREEK BASIN

03237280 UPPER TWIN CREEK AT MCGAW, OH--Continued

PESTICIDES ANALYSES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL PCB (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLORDANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL DIAZINON (UG/L)
OCT 12...	1230	5.7	.0	.00	.0	.00	.00	.00	.00	.00
NOV 10...	1330	3.7	--	--	--	--	--	--	--	--
DEC 02...	1500	1.1	--	--	--	--	--	--	--	--
FEB 24...	1230	62	--	--	--	--	--	--	--	--
MAR 09...	1430	14	--	--	--	--	--	--	--	--
APR 19...	1100	5.8	--	--	--	--	--	--	--	--
MAY 03...	1400	6.6	--	--	--	--	--	--	--	--
JUN 14...	1130	.41	--	--	--	--	--	--	--	--
JUL 14...	1230	.46	--	--	--	--	--	--	--	--
AUG 10...	1130	.61	--	--	--	--	--	--	--	--
SEP 20...	1100	.66	--	--	--	--	--	--	--	--

DATE	TOTAL ENDRIN (UG/L)	TOTAL HEPTACHLOR (UG/L)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
OCT 12...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NOV 10...	--	--	--	--	--	--	--	--	--	--
DEC 02...	--	--	--	--	--	--	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--	--
APR [illegible]...	--	--	--	--	--	--	--	--	--	--
MAY 03...	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--	--	--	--

03237280 UPPER TWIN CREEK AT MCGAW, OH--Continued

PESTICIDES ANALYSES OF BOTTOM MATERIAL

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	PCB IN BOTTOM MATERIAL (UG/KG)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	DDD IN BOTTOM MATERIAL (UG/KG)	DDE IN BOTTOM MATERIAL (UG/KG)
OCT							
12...	1230	5.7	0	.0	0	.0	.1
NOV							
10...	1330	3.7	--	--	--	--	--
DEC							
02...	1500	1.1	--	--	--	--	--
FEB							
24...	1230	62	--	--	--	--	--
MAR							
09...	1430	14	--	--	--	--	--
APR							
19...	1100	5.8	--	--	--	--	--
MAY							
03...	1400	6.6	--	--	--	--	--
JUN							
14...	1130	.41	--	--	--	--	--
JUL							
14...	1230	.46	--	--	--	--	--
AUG							
10...	1130	.61	--	--	--	--	--
SEP							
20...	1100	.66	--	--	--	--	--

DATE	DDT IN BOTTOM MATERIAL (UG/KG)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	LINDANE IN BOTTOM MATERIAL (UG/KG)
OCT						
12...	.0	.0	.0	.0	.0	.0
NOV						
10...	--	--	--	--	--	--
DEC						
02...	--	--	--	--	--	--
FEB						
24...	--	--	--	--	--	--
MAR						
09...	--	--	--	--	--	--
APR						
19...	--	--	--	--	--	--
MAY						
03...	--	--	--	--	--	--
JUN						
14...	--	--	--	--	--	--
JUL						
14...	--	--	--	--	--	--
AUG						
10...	--	--	--	--	--	--
SEP						
20...	--	--	--	--	--	--

03237280 UPPER TWIN CREEK AT McGAW, OH--Continued

SUSPENDED SEDIMENT DISCHARGE

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT					
12...	1230	5.8	15.0	0	.00
NOV					
10...	1330	3.7	8.5	1	.01
DEC					
02...	1500	1.1	3.0	1	.00
JAN					
26...	1230	2.1	1.0	1	.01
FEB					
24...	1230	62	4.5	9	1.5
MAR					
09...	1430	14	8.5	1	.04
APR					
19...	1100	5.8	16.5	2	.03
MAY					
03...	1400	6.6	17.0	2	.04
JUN					
14...	1130	.40	21.5	0	.00
JUL					
14...	1230	.50	30.0	1	.00
AUG					
10...	1130	.60	25.5	2	.00
SEP					
20...	1100	.70	21.0	4	.01

03237280 UPPER TWIN CREEK AT McGAW, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	14.5	10.0	8.0	3.5	2.0	0.5	0.5	1.5	1.5	5.0	2.5
2	17.5	14.5	9.5	7.0	4.0	1.0	0.5	0.5	1.5	1.0	5.0	2.5
3	19.5	15.0	11.0	8.5	2.0	1.0	0.5	0.5	1.0	1.0	6.0	3.0
4	20.0	15.0	9.0	6.5	3.5	1.0	0.5	0.5	1.0	1.0	6.5	5.0
5	20.0	15.0	8.0	6.0	3.0	1.0	0.5	0.5	1.0	1.0	7.0	4.5
6	18.0	15.5	8.5	5.0	1.5	1.0	0.5	0.5	1.0	1.0	7.0	4.5
7	15.5	14.5	8.5	5.5	3.0	1.0	0.5	0.5	1.0	1.0	5.5	4.0
8	16.0	14.0	6.5	4.5	3.0	2.0	0.5	0.5	1.0	1.0	7.5	4.0
9	14.0	12.5	8.0	4.5	2.5	1.5	0.5	0.5	1.0	1.0	9.0	4.0
10	15.0	11.5	9.0	5.5	4.0	1.5	0.5	0.5	1.0	1.0	9.0	5.0
11	15.5	11.5	6.5	5.0	4.5	4.0	0.5	0.5	1.0	0.5	10.5	5.0
12	16.0	11.0	7.0	4.5	5.0	4.0	0.5	0.5	1.0	1.0	9.5	8.0
13	17.5	12.0	6.5	3.5	4.0	2.0	0.5	0.5	3.5	1.0	8.5	7.0
14	16.0	11.5	5.5	3.0	3.0	2.0	0.5	0.5	3.0	2.5	10.5	6.5
15	17.0	10.5	7.5	4.0	4.0	2.0	0.5	0.5	3.0	2.5	11.5	6.5
16	15.0	12.0	6.5	3.0	3.5	1.5	0.5	0.5	3.0	2.0	11.5	7.5
17	14.5	10.0	7.0	3.0	4.5	2.5	---	---	2.0	1.5	9.0	6.0
18	13.5	8.5	7.5	4.5	4.0	2.5	---	---	2.0	1.5	11.0	7.5
19	12.5	8.5	9.5	5.5	4.5	2.5	---	---	3.5	2.0	8.5	6.5
20	11.0	9.5	7.5	4.5	5.0	2.5	---	---	2.5	2.0	8.5	6.0
21	11.0	9.0	6.5	4.0	2.5	1.0	---	---	3.5	2.0	9.5	5.5
22	11.0	7.5	5.5	4.0	1.5	1.0	---	---	5.0	2.0	8.0	6.0
23	9.0	7.0	5.5	3.5	1.5	0.5	---	---	5.5	3.0	8.5	4.5
24	10.5	8.5	4.5	3.0	0.5	0.5	---	---	5.5	4.5	9.5	5.0
25	11.5	10.5	7.0	2.5	1.0	0.5	---	---	6.5	4.0	9.5	4.5
26	11.0	9.5	9.5	6.0	1.5	1.0	1.5	1.5	8.0	4.5	10.5	5.0
27	9.5	8.0	13.0	8.5	1.5	0.5	1.5	1.5	7.0	4.5	10.0	6.5
28	9.5	6.5	9.0	5.0	2.0	1.0	1.5	1.5	6.0	4.0	11.5	9.0
29	9.5	5.5	5.0	3.0	1.0	1.0	1.5	1.5	---	---	15.0	9.5
30	7.5	6.5	3.0	2.0	1.0	0.5	1.5	1.5	---	---	16.5	11.0
31	9.5	7.5	---	---	0.5	0.5	1.5	1.5	---	---	15.0	10.0
MONTH	20.0	5.5	13.0	2.0	5.0	0.5	1.5	0.5	8.0	0.5	16.5	2.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	8.0	18.0	11.5	29.5	18.5	20.0	17.5	30.0	21.5	30.5	22.0
2	14.0	11.0	19.5	13.5	28.5	17.0	21.5	16.5	30.5	19.0	30.0	22.0
3	11.5	10.0	18.5	14.5	30.0	16.0	23.5	17.0	32.0	18.5	28.5	21.5
4	11.0	9.5	18.5	15.0	30.5	14.0	25.5	17.5	31.0	19.5	29.5	20.0
5	10.5	7.5	17.0	15.0	27.5	16.0	28.5	20.0	32.5	21.0	27.5	22.0
6	8.0	6.5	19.0	14.0	27.5	17.0	30.0	21.0	31.0	21.5	27.0	22.0
7	11.5	6.0	15.5	13.5	24.0	14.0	29.5	22.0	31.0	22.5	24.0	21.5
8	12.0	7.5	16.0	11.5	22.0	12.5	32.0	22.5	30.0	22.0	28.0	19.5
9	11.0	6.0	15.0	11.0	20.5	15.0	28.0	22.5	25.5	23.0	28.5	19.5
10	13.5	7.0	15.0	10.0	23.0	13.5	26.0	21.5	28.5	20.5	26.5	18.0
11	15.5	9.5	17.0	10.0	22.0	16.0	30.5	21.0	22.0	19.5	24.5	16.0
12	17.0	10.5	17.5	10.5	27.0	15.5	29.5	22.0	21.5	20.0	24.5	15.0
13	17.5	11.0	20.0	11.5	27.5	17.5	32.0	23.0	21.0	20.0	25.0	17.5
14	17.0	11.5	20.5	13.5	24.5	19.5	34.0	23.0	20.5	19.0	22.0	19.5
15	18.0	12.0	22.0	14.5	28.0	19.5	33.5	22.5	23.5	19.0	27.0	18.0
16	18.5	12.0	22.0	14.0	30.0	19.0	34.0	24.0	24.0	19.5	22.5	20.0
17	16.0	12.5	23.5	15.5	33.0	19.5	34.0	23.5	22.0	19.5	23.5	19.5
18	19.0	12.5	25.0	16.5	30.0	20.0	36.0	22.0	23.5	18.5	24.5	19.0
19	18.5	13.5	24.5	17.0	31.0	20.0	35.5	23.0	24.5	17.0	25.0	19.5
20	18.5	14.0	26.5	17.5	32.0	20.0	36.0	23.0	25.0	17.0	21.5	19.0
21	19.5	14.5	27.5	18.0	27.0	20.0	36.0	23.5	25.5	17.5	22.0	17.0
22	17.5	15.0	26.0	18.0	20.0	18.5	34.5	22.0	27.0	19.0	23.5	16.0
23	18.0	15.0	25.5	18.0	27.0	18.0	35.5	18.0	28.0	18.5	23.5	16.5
24	17.0	13.5	27.0	18.0	22.0	20.0	30.5	19.5	21.0	19.5	22.0	18.5
25	14.5	11.5	22.5	19.0	24.0	19.5	28.0	22.5	24.0	18.0	23.5	18.0
26	14.0	11.0	29.0	17.0	27.5	20.0	32.5	19.5	24.0	18.0	23.5	17.0
27	18.0	9.5	29.5	16.5	27.0	20.5	33.0	18.0	27.5	19.5	22.5	16.0
28	15.0	12.0	30.0	17.5	25.0	20.5	31.0	17.0	29.0	20.5	21.0	14.5
29	16.0	10.5	29.5	18.5	23.5	19.0	22.5	21.0	29.5	21.0	21.0	13.5
30	16.5	10.0	30.5	19.0	23.5	18.0	30.0	21.0	26.0	21.5	21.5	13.5
31	---	---	29.5	19.5	---	---	29.0	22.0	30.0	21.5	---	---
MONTH	19.5	6.0	30.5	10.0	33.0	12.5	36.0	16.5	32.5	17.0	30.5	13.5
YEAR	36.0	0.5										

03237500 OHIO BRUSH CREEK NEAR WEST UNION, OH

LOCATION.--Lat 38°48'13",, long 83°25'16", Adams County, Hydrologic Unit 05090201, on right bank at downstream side of bridge on State Highway 348, 0.3 mi (0.5 km) downstream from Cedar Run, 7.0 mi (11.3 km) east of West Union, and 7.1 mi (11.4 km) upstream from Beasley Fork.

DRAINAGE AREA.--387 mi² (1,002 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1926 to November 1935, September 1940 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 510.6 ft (155.63 m) above mean sea level, adjustment of 1912. Prior to Nov. 22, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--46 years, 441 ft³/s (12.49 m³/s), 15.47 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,200 ft³/s (1,680 m³/s) Mar. 10, 1964, gage height, 27.91 ft (8.507 m), from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of slope-area measurement at gage heights 22.70 ft (6.919 m), 26.5 ft (8.077 m), and 27.91 ft (8.507 m); no flow Sept. 13-23, 27, 28, 1955 and for part of each day Sept. 17, 18, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,400 ft³/s (351 m³/s) Mar. 13 (base 11,000 ft³/s, 312 m³/s) gage height, 14.89 ft (4.538 m); minimum discharge 6.7 ft³/s (0.190 m³/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	470	43	26	10	254	140	91	41	1710	17	43
2	38	229	36	20	10	245	798	78	23	501	14	36
3	30	159	35	19	10	247	4000	88	17	179	12	30
4	25	123	33	17	10	5210	1110	117	13	93	11	24
5	21	98	32	16	10	1760	2230	205	11	63	9.3	20
6	19	83	40	15	10	755	1260	149	16	46	7.5	78
7	19	74	586	14	10	495	1250	321	12	34	9.2	34
8	20	66	559	13	10	349	763	377	10	27	16	20
9	392	59	263	12	11	274	509	199	72	22	59	16
10	526	56	176	11	16	227	382	109	95	20	43	13
11	191	51	167	11	148	193	307	81	51	44	126	11
12	107	47	205	10	1020	659	245	68	34	180	1330	9.9
13	72	45	176	10	4410	5750	205	59	25	408	1120	9.0
14	57	41	118	10	1150	1240	180	51	19	985	1660	8.5
15	45	38	118	10	593	663	161	44	15	173	570	8.0
16	36	37	100	10	362	446	143	39	12	79	199	11
17	32	36	92	10	255	312	127	33	10	52	110	368
18	27	35	83	10	208	1490	117	29	8.9	36	72	140
19	24	34	74	10	173	987	110	26	8.8	28	52	69
20	27	33	78	10	167	588	101	24	8.5	23	39	149
21	45	33	90	10	182	476	94	21	8.0	18	31	87
22	90	32	62	10	225	1060	90	18	7.8	15	26	54
23	77	30	67	10	1840	756	95	16	14	12	23	36
24	711	29	49	10	2520	469	103	14	45	11	1350	27
25	730	29	47	10	1150	335	108	13	423	29	598	22
26	315	29	46	10	637	268	103	12	570	41	197	38
27	179	32	49	10	489	226	94	11	148	27	208	63
28	123	37	57	10	361	218	87	11	519	18	233	56
29	94	56	56	10	---	222	114	18	603	23	103	34
30	105	56	40	10	---	186	125	229	256	41	67	24
31	760	---	33	10	---	163	---	76	---	24	54	---
TOTAL	4991	2177	3610	374	15997	26523	15151	2627	3096.0	4962	8366.0	1538.4
MEAN	161	72.6	116	12.1	571	856	505	84.7	103	160	270	51.3
MAX	760	470	586	26	4410	5750	4000	377	603	1710	1660	368
MIN	19	29	32	10	10	163	87	11	7.8	11	7.5	8.0
CFSM	.42	.19	.30	.03	1.48	2.21	1.31	.22	.27	.41	.70	.13
IN.	.48	.21	.35	.04	1.54	2.55	1.46	.25	.30	.48	.80	.15

CAL YR 1976 TOTAL 122647.1 MEAN 335 MAX 13000 MIN 3.7 CFSM .87 IN 11.79
WTR YR 1977 TOTAL 89412.4 MEAN 245 MAX 5750 MIN 7.5 CFSM .63 IN 8.59

03237500 OHIO BRUSH CREEK NEAR WEST UNION, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

REMARKS.--Sediment data collected at this site 1969 to 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
30...	1145	183	480	8.3	14.5	10.5	102	.3	240	54	57	24
JUN												
22...	1120	7.3	463	7.8	22.5	6.6	77	1.0	220	34	54	21

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
30...	5.3	2.1	224	2	187	1.8	45	9.5	.1	2.1	258	.38
JUN												
22...	6.6	3.9	228	0	187	5.8	37	11	.1	4.8	251	.57

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
30...	.01	.01	.02	1	<10	3	30	0	30	.4	0	--
JUN												
22...	.01	.05	.03	2	20	4	30	3	70	.0	20	7.1

03238500 WHITEOAK CREEK NEAR GEORGETOWN, OH

LOCATION.--Lat 38°51'29", long 83°55'43", Brown County, Hydrologic Unit 05090201, on left bank 150 ft (46 m) upstream from diversion dam for Georgetown water treatment plant, 0.7 mi (1.1 km) upstream from Town Run, 1.4 mi (2.3 km) southwest of Georgetown, and 7.2 mi (11.6 km) upstream from mouth.

DRAINAGE AREA.--218 mi^2 (565 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to November 1935, October 1939 to current year.

REVISED RECORDS.--WSP 728: 1924-31. WSP 758: 1933. WSP 1908: Drainage area. WRD Ohio 1974: 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 604.20 ft (184.160 m) above mean sea level. Prior to Oct. 12, 1972 nonrecording gage at a site 1.0 mi (1.6 km) downstream at a datum 35.24 ft (10.741 m) lower. See WSP 2108 for history of changes prior to Dec. 8, 1940.

REMARKS.--Records poor prior to Mar. 8, fair thereafter.

AVERAGE DISCHARGE.--50 years, 250 ft^3/s (7.080 m^3/s), 15.57 in/yr (395 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft^3/s (634 m^3/s) Mar. 10, 1964; maximum gage height, 20.87 ft (6.361 m), May 14, 1933, site and datum then in use; no flow at times in 1930, 1940-41, 1943, 1948, 1951-53, 1959, 1969, 1970, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge above base of 5,500 ft^3/s (156 m^3/s), 5,780 ft^3/s (164 m^3/s) Apr. 3, gage height, 6.42 ft (1.957 m); minimum, no flow part of each day July 8, 9, 12, 16, 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	450	35	4.2	1.5	120	41	38	1.3	721	5.8	19
2	8.0	150	31	3.2	1.5	150	421	29	2.1	315	4.6	15
3	6.5	100	29	2.2	1.5	340	3910	44	3.1	89	4.4	11
4	6.5	72	28	1.6	2.2	2100	673	53	1.0	44	4.6	8.3
5	5.2	56	27	1.5	3.1	750	2710	44	1.3	27	4.8	5.8
6	6.5	45	26	1.5	2.2	300	817	86	1.4	18	4.0	6.6
7	8.0	37	330	1.5	5.2	150	889	315	1.1	13	3.4	5.2
8	6.5	32	300	1.5	10	110	349	252	.09	9.3	2.9	5.2
9	35	29	140	1.5	32	88	179	100	.45	7.5	3.6	5.2
10	50	27	100	1.5	75	92	126	60	5.5	13	23	4.5
11	57	25	110	1.5	230	85	100	44	2.0	93	63	3.0
12	23	24	88	1.5	500	437	88	35	4.3	198	617	1.5
13	9.6	22	72	1.5	1900	3180	74	29	4.5	235	491	4.7
14	6.5	21	63	1.5	700	508	60	26	3.6	165	332	7.0
15	8.0	20	60	1.5	800	223	57	20	1.7	56	145	7.8
16	6.5	19	41	1.5	450	149	53	18	.65	29	53	688
17	5.2	18	38	1.5	280	113	47	11	1.3	18	32	736
18	5.2	16	32	1.5	160	1190	44	9.0	1.1	13	20	144
19	6.5	17	25	1.5	100	778	41	6.1	.59	7.4	14	83
20	6.5	17	21	1.5	80	246	38	9.9	10	5.0	11	244
21	11	17	16	1.5	95	195	38	7.6	19	3.3	10	97
22	15	17	14	1.5	400	377	35	6.3	10	3.6	16	50
23	36	17	11	1.5	1100	302	38	9.3	5.7	3.5	8.6	31
24	120	17	9.5	1.5	2700	140	38	6.2	11	2.7	792	24
25	460	17	8.0	1.5	1500	92	44	5.3	25	3.0	395	17
26	280	18	6.5	1.5	400	70	44	4.4	276	5.7	263	17
27	170	22	7.2	1.5	190	60	38	3.7	78	22	838	14
28	100	28	6.4	1.5	130	60	38	4.0	238	22	197	11
29	62	32	5.8	1.5	---	63	50	2.4	317	16	71	10
30	44	37	6.4	1.5	---	60	47	1.6	146	12	42	6.8
31	130	---	5.2	1.5	---	50	---	1.7	---	7.4	27	---
TOTAL	1705.2	1421	1642.0	51.9	11849.2	12578	11127	1287.5	1172.78	2177.4	4498.7	2282.6
MEAN	55.0	47.4	54.6	1.67	423	406	371	41.5	39.1	70.2	145	76.1
MAX	460	450	330	4.2	2700	3180	3910	315	317	721	838	736
MIN	5.2	17	5.2	1.5	1.5	50	35	1.6	.09	2.7	2.9	1.5
CFSM	.25	.22	.25	.008	1.94	1.86	1.70	.19	.18	.32	.67	.35
IN.	.29	.24	.29	.01	2.02	2.15	1.90	.22	.20	.37	.77	.39

CAL YR 1976 TOTAL 69539.69 MEAN 190 MAX 10500 MIN .00 CFSM .87 IN 11.87
WTR YR 1977 TOTAL 51843.28 MEAN 142 MAX 3910 MIN .09 CFSM .65 IN 8.85

Note: No gage height record Oct. 22 to Dec. 13, Jan. 8 to Mar. 8.

03238500 WHITEOAK CREEK NEAR GEORGETOWN, OHIO--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 08...	1430	120	440	8.2	9.0	10.8	93	3.0	200	66	58	14
JUN 21...	1115	22	490	8.1	24.5	7.9	94	2.0	220	49	54	21

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 08...	10	4.6	166	0	136	1.7	52	20	.1	6.5	247	2.0
JUN 21...	11	4.5	210	0	172	2.7	44	19	.1	2.7	260	.19

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 08...	.02	.03	.10	1	20	4	100	6	20	.0	40	7.1
JUN 21...	.00	.12	.07	2	10	6	150	3	20	.0	40	6.3

03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OH

LOCATION.--Lat 39°44'54", long 83°55'53", in sec. 34, R.7, T.4, Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on U.S. Highway 68, 0.8 mi (1.3 km) downstream from Conner Branch, 0.9 mi (1.4 km) upstream from Massies Creek, and 1.3 mi (2.1 km) northeast of Oldtown.

DRAINAGE AREA.--129 mi² (334 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 816.56 ft (248.887 m) above mean sea level.

REMARKS.--Records good, except those for the winter period, which are fair.

AVERAGE DISCHARGE.--25 years, 108 ft³/s (3.059 m³/s), 11.37 in/yr (289 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s (419 m³/s) Jan. 21, 1959, gage height, 12.20 ft (3.719 m), from rating curve extended above 4,400 ft³/s (125 m³/s) on basis of slope-area measurements of peak flow; minimum, 5.4 ft³/s (0.15 m³/s) July 29, 1954, result of temporary storage at rock dam upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 23	unknown	ice jam		*6.56	1.999
Feb. 24	unknown	a*1350	38.2	ice jam	

Minimum discharge, 8.2 ft³/s (0.232 m³/s) Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	54	22	11	9.8	132	66	66	29	25	35	11
2	26	47	24	11	9.8	111	301	63	27	26	18	12
3	25	42	22	11	9.8	137	297	59	27	21	15	18
4	25	39	19	11	9.8	400	295	83	26	19	14	20
5	24	37	18	11	9.8	306	444	113	26	18	13	16
6	26	34	18	11	9.6	206	292	97	30	17	12	14
7	28	33	19	11	9.6	156	209	94	27	17	12	13
8	27	33	19	11	9.6	126	162	81	27	18	14	12
9	29	31	18	10	9.6	110	128	69	31	16	13	12
10	28	31	18	10	10	96	110	63	27	16	12	11
11	28	28	17	10	11	85	96	59	26	16	12	10
12	26	28	17	10	20	147	85	55	26	16	14	9.3
13	26	30	16	10	34	269	79	52	25	17	16	11
14	26	27	15	10	28	180	75	50	28	16	14	13
15	25	28	15	10	23	139	71	47	26	15	22	11
16	25	25	15	11	21	110	66	45	24	14	18	14
17	24	27	18	11	20	99	63	43	23	13	20	16
18	25	26	15	11	19	172	61	42	23	14	19	15
19	26	26	15	11	18	147	59	40	29	13	16	16
20	31	26	14	10	25	140	58	39	27	12	15	16
21	33	26	14	10	70	128	56	37	24	11	14	14
22	29	26	14	10	150	187	57	35	22	16	16	14
23	28	25	13	10	700	159	58	36	23	15	14	13
24	46	25	13	10	800	124	58	34	22	15	16	13
25	80	25	13	10	394	104	59	50	22	13	15	12
26	59	29	12	10	272	92	56	39	25	12	14	13
27	47	30	12	10	222	87	52	35	21	11	14	15
28	40	27	12	10	161	97	59	33	21	9.5	13	15
29	37	28	12	9.8	---	86	97	32	21	55	12	15
30	37	33	12	9.8	---	78	78	32	20	25	12	14
31	47	---	12	9.8	---	71	---	30	---	25	12	---
TOTAL	1012	926	493	321.4	3085.4	4483	3649	1653	755	546.5	476	408.3
MEAN	32.6	30.9	15.9	10.4	110	145	122	53.3	25.2	17.6	15.4	13.6
MAX	80	54	24	11	800	400	444	113	31	55	35	20
MIN	24	25	12	9.8	9.6	71	52	30	20	9.5	12	9.3
CFSM	.25	.24	.12	.08	.85	1.12	.95	.41	.20	.14	.12	.11
IN.	.29	.27	.14	.09	.89	1.29	1.05	.48	.22	.16	.14	.12

CAL YR 1976 TOTAL 32986.0 MEAN 90.1 MAX 1350 MIN 12 CFSM .70 IN 9.51
WTR YR 1977 TOTAL 17808.6 MEAN 48.8 MAX 800 MIN 9.3 CFSM .38 IN 5.14

a/ About.

03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
02...	1225	121	660	8.2	3.5	12.2	92	.5	370	98	87	36
JUN												
13...	1045	23	740	7.9	16.5	8.0	85	1.3	370	84	84	38

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
02...	8.7	2.1	326	0	267	3.3	42	29	.2	7.7	373	4.4
JUN												
13...	13	1.9	344	0	282	6.9	63	28	.2	8.6	406	1.8

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
02...	.03	.10	.09	1	10	28	20	5	30	.0	30	2.0
JUN												
13...	.01	.05	.17	2	<10	4	10	0	20	.3	10	7.1

03241500 MASSIES CREEK AT WILBERFORCE, OH

LOCATION.--Lat 39°43'22", long 83°52'58", Greene County, Hydrologic Unit 05090202, on right bank 200 ft (61 m) downstream from bridge on Wilberforce-Clifton Road, 0.5 mi (0.8 km) northwest of Wilberforce, 0.6 mi (1.0 km) downstream from unnamed right bank tributary and 1.7 mi (2.7 km) upstream from Clark Run.

DRAINAGE AREA.--63.2 mi^2 (164 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1952 to current year. Prior to October 1962, published as Massie Creek at Wilberforce.

REVISIONS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 865.15 ft (263.698 m) above mean sea level. Prior to Aug. 4, 1972 at site 150 ft (46 m) upstream at same datum.

REMARKS.--Records good except those for the winter period and no gage height record, which are fair.

AVERAGE DISCHARGE.--25 years, 58.9 ft^3/s (1.668 m^3/s), 12.65 in/yr (321 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s (207 m^3/s) Jan. 21, 1959, Mar. 4, 1963, gage height, 11.25 ft (3.429 m), from rating curve extended above 3,100 ft^3/s (87.8 m^3/s); minimum, 0.3 ft^3/s (0.008 m^3/s) Sept. 3-7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge [illegible] ft^3/s (14.2 m^3/s) July 21, gage height, 4.54 ft (1.384 m), no peak above base of 600 ft^3/s (17.0 m^3/s); minimum, 2.0 ft^3/s (0.057 m^3/s) Dec. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	19	7.8	4.8	4.4	70	33	28	11	13	19	3.2
2	8.9	17	7.8	4.8	4.4	64	99	26	11	8.3	9.9	2.9
3	7.8	16	6.5	4.7	4.4	62	169	27	11	6.4	7.3	6.0
4	7.8	15	7.4	4.7	4.4	216	128	30	10	5.5	6.1	16
5	7.8	13	6.9	4.7	4.4	212	225	31	9.8	5.0	5.4	11
6	10	12	9.2	4.7	4.4	135	149	31	12	4.4	4.9	7.6
7	10	12	9.0	4.7	4.5	99	107	33	11	4.5	5.5	6.2
8	10	10	8.6	4.6	4.7	76	85	30	10	6.0	11	4.6
9	12	11	8.4	4.6	4.9	65	68	27	13	4.7	14	4.1
10	11	11	8.2	4.6	5.2	56	60	25	10	4.3	8.2	4.3
11	11	10	8.0	4.6	5.6	48	52	24	9.4	4.4	7.6	3.4
12	10	10	7.8	4.6	6.6	57	46	22	9.7	4.4	11	3.4
13	10	10	7.6	4.6	16	126	43	22	9.0	4.2	8.2	3.9
14	9.4	10	7.4	4.6	14	97	41	21	11	4.0	17	8.8
15	9.4	10	7.2	4.6	12	75	37	20	9.8	3.7	9.7	5.8
16	9.4	9.4	7.0	4.7	11	60	34	19	8.3	3.7	7.4	12
17	8.3	8.9	6.8	4.8	10	50	33	16	7.8	3.9	6.8	11
18	8.3	8.9	7.0	4.8	9.6	78	31	17	10	2.9	5.6	11
19	7.8	8.9	6.6	4.7	9.4	86	31	16	11	2.9	5.0	11
20	12	8.9	6.2	4.6	9.0	74	29	15	9.5	2.6	4.6	10
21	12	8.9	6.0	4.5	30	62	28	14	7.8	59	5.0	9.5
22	10	8.9	5.8	4.5	120	86	28	13	7.4	23	5.1	8.9
23	10	7.8	5.6	4.5	320	85	29	13	7.9	7.1	4.9	8.3
24	19	8.3	5.4	4.4	250	67	28	14	7.4	5.2	5.9	7.6
25	26	8.3	5.2	4.4	170	58	28	30	8.4	6.5	4.9	7.4
26	22	10	5.2	4.4	130	49	27	20	10	6.2	4.2	7.6
27	17	11	5.2	4.4	100	44	25	16	7.6	5.7	3.9	7.4
28	15	10	5.2	4.4	85	48	28	15	9.2	5.1	3.7	7.2
29	14	8.3	5.0	4.4	---	45	33	14	7.7	32	3.5	6.8
30	15	7.8	5.0	4.4	---	40	31	13	7.3	20	3.6	6.4
31	19	---	4.9	4.4	---	36	---	12	---	11	3.5	---
TOTAL	369.3	320.3	209.9	142.2	1353.9	2424	1785	658	284.6	279.6	222.4	223.3
MEAN	11.9	10.7	6.77	4.59	48.4	78.2	59.5	21.2	9.49	9.02	7.17	7.44
MAX	26	19	9.2	4.8	320	216	225	33	13	59	19	16
MIN	7.8	7.8	4.9	4.4	4.4	36	25	12	7.3	2.6	3.5	2.9
CFSM	.19	.17	.11	.07	.77	1.24	.94	.34	.15	.14	.11	.12
IN.	.22	.19	.12	.08	.80	1.43	1.05	.39	.17	.16	.13	.13

CAL YR 1976 TOTAL 16133.6 MEAN 44.1 MAX 941 MIN 4.3 CFSM .70 IN 9.50
WTR YR 1977 TOTAL 8272.5 MEAN 22.7 MAX 320 MIN 2.6 CFSM .36 IN 4.87

Note: No gage height record Jan. 12 to Mar. 2.

03241500 MASSIES CREEK AT WILBERFORCE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA+MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 02...	1445	66	670	8.2	5.0	12.4	97	.9	360	110	86	35
JUN 13...	1230	6.5	740	8.1	21.0	11.3	120	3.6	360	96	79	39

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 02...	7.1	1.6	304	0	249	3.1	62	27	.2	7.4	376	5.3
JUN 13...	16	2.3	319	0	262	4.1	69	35	.2	8.3	406	1.2

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 02...	.05	.14	.09	1	20	5	20	5	30	.0	20	3.4
JUN 13...	.02	.27	.31	3	<10	5	20	0	20	.0	30	6.2

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OH

LOCATION.--Lat 39°35'00, long 84°01'49", Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on New Burlington Road, 0.3 mi (0.5 km) upstream from unnamed right bank tributary, 2.2 mi (3.5 km) southwest of Spring Valley, and 2.8 mi (4.5 km) downstream from Glady Run.

DRAINAGE AREA.--366 mi² (948 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1925 to December 1935 and October 1939 to December 1951 (published as "at Spring Valley"), July 1968 to current year.

REVISED RECORDS.--WSP 893: 1932(M). WSP 1053: 1929. WSP 2108: 1969.

GAGE.--Water-stage recorder. Datum of gage is 729.29 ft (222.288 m) above mean sea level. Prior to Dec. 12, 1939 nonrecording gage and Dec. 13, 1939 to Dec. 31, 1951 water-stage recorder at site 2.5 mi (4.0 km) upstream at datum 8.6 ft (2.62 m) higher.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--31 years (1925-35, 1939-51, 1969-77), 379 ft³/s (10.73 m³/s), 14.06 in/yr (357 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) Feb. 26, 1929, gage height, 16.8 ft (5.12 m) site and datum then in use; minimum, 23 ft³/s (0.65 m³/s) July 27, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959 reached a stage of 18.1 ft (5.52 m) at present site and datum, discharge, 36,400 ft³/s (1,030 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s (46.4 m³/s) July 29, gage height, 7.54 ft (2.298 m), no peak above base of 3,600 ft³/s (102 m³/s); minimum, 69 ft³/s (1.95 m³/s) Dec. 30, July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	157	103	76	74	372	205	220	103	144	144	87
2	103	150	103	76	74	321	600	190	99	103	112	85
3	99	140	98	76	74	297	789	173	98	91	95	85
4	97	131	102	76	74	946	624	267	97	86	90	86
5	96	126	97	76	74	854	938	323	95	85	87	91
6	104	122	97	76	72	562	697	354	96	86	85	89
7	111	118	118	76	72	432	519	432	99	84	94	99
8	108	115	107	76	72	364	432	313	97	89	92	86
9	106	115	99	76	72	323	367	246	126	86	226	85
10	112	113	102	76	78	290	330	216	103	87	118	87
11	101	112	105	76	95	261	302	198	99	93	106	84
12	101	110	104	76	120	318	274	183	98	85	145	81
13	98	109	101	76	230	555	254	173	95	84	116	83
14	95	109	97	76	180	475	239	162	105	82	267	142
15	95	107	99	78	160	377	226	154	101	81	137	94
16	94	107	102	78	150	321	211	148	94	80	112	121
17	94	105	98	78	140	274	200	143	91	81	158	109
18	93	106	94	78	130	382	193	137	90	83	110	100
19	95	106	92	78	130	402	189	133	147	79	100	142
20	115	105	90	78	130	379	184	130	110	77	95	111
21	133	104	88	78	230	347	193	125	100	84	93	95
22	108	105	86	78	247	413	193	118	97	157	107	92
23	104	106	84	78	697	416	198	117	95	93	95	90
24	205	105	82	78	1360	357	186	117	93	83	127	88
25	184	104	80	78	1100	309	190	128	94	78	102	86
26	172	125	78	78	694	274	180	131	124	78	94	84
27	147	132	78	78	551	252	167	119	99	73	93	85
28	133	112	76	76	448	292	203	112	106	71	91	84
29	124	109	76	76	---	274	290	108	93	430	87	84
30	125	103	76	76	---	243	250	107	89	407	88	84
31	208	---	76	76	---	220	---	106	---	126	88	---
TOTAL	3663	3468	2888	2382	7528	11902	9823	5583	3033	3446	3554	2809
MEAN	118	116	93.2	76.8	269	384	327	180	101	111	115	93.6
MAX	208	157	118	78	1360	946	938	432	147	430	267	142
MIN	93	103	76	76	72	220	167	106	89	71	85	81
CFSM	.32	.32	.26	.21	.74	1.05	.89	.49	.28	.30	.31	.26
IN.	.37	.35	.29	.24	.77	1.21	1.00	.57	.31	.35	.36	.29

CAL YR 1976 TOTAL 96222 MEAN 263 MAX 3450 MIN 76 CFSM .72 IN 9.78
WTR YR 1977 TOTAL 60079 MEAN 165 MAX 1360 MIN 71 CFSM .45 IN 6.11

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1968 to current year.
pH: September 1968 to current year.
WATER TEMPERATURES: September 1968 to current year.
DISSOLVED OXYGEN: September 1968 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,570 micromhos Feb. 1, 1971; minimum, 161 micromhos July 4, 1975.
pH: Maximum, 9.2 units Dec. 30, 1971; minimum, 6.6 units Nov. 29, 1972, July 11, 12, 1974.
WATER TEMPERATURES: Maximum, 34.5°C June 26, 1971; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Jan. 8, 9, Feb. 11, 12, 1973, Mar. 24-27, 1974; minimum, 1.0 mg/L July 29, 1974.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,050 micromhos Sept. 2; minimum, 300 micromhos July 30.
pH: Maximum recorded, 8.6 units Dec. 16; minimum recorded, 7.2 units Nov. 28.
WATER TEMPERATURES: Maximum, 29.5°C July 6, 7, 8, 19, 20; minimum, 0.0°C on many days during winter period.
DISSOLVED OXYGEN: Maximum, 14.5 mg/L Nov. 16, 17; minimum, 1.0 mg/L July 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA+MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
07...	1550	431	765	8.2	5.0	10.2	80	2.0	360	100	88	34
JUN												
06...	1230	92	907	8.0	21.0	7.2	80	2.8	380	81	91	37

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
07...	21	2.9	312	0	256	3.1	61	47	.2	8.6	417	5.5
JUN												
06...	50	3.8	364	0	299	5.8	61	63	.2	11	517	2.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
07...	.06	.49	.32	2	10	13	20	8	40	.0	30	9.2
JUN												
06...	.23	.31	1.0	1	30	2	30	0	100	.3	10	5.1

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	824	767	783	600	923	885	---	---	---	---	630	482
2	824	755	819	774	917	891	---	---	---	---	821	618
3	834	750	806	779	920	885	---	---	---	---	891	750
4	873	810	804	780	924	750	909	906	---	---	809	536
5	890	843	869	792	983	876	915	906	---	---	555	519
6	854	822	818	794	923	885	1020	908	---	---	671	557
7	935	815	822	782	926	891	1020	1010	---	---	767	627
8	867	813	812	788	999	900	---	---	---	---	761	728
9	903	867	828	789	920	896	---	---	---	---	785	752
10	930	797	834	795	921	891	---	---	---	---	806	768
11	806	767	848	795	914	893	---	---	---	---	806	768
12	860	795	---	---	926	891	---	---	---	---	791	728
13	906	848	---	---	906	881	995	963	---	---	675	620
14	905	843	---	---	900	879	978	941	---	---	726	644
15	858	843	---	---	936	899	939	891	---	---	753	726
16	861	843	863	836	999	897	---	---	---	---	773	753
17	870	855	870	839	992	954	---	---	---	---	788	750
18	971	864	875	840	974	935	---	---	---	---	792	617
19	911	879	882	863	995	948	---	---	---	---	704	648
20	914	846	898	870	989	933	---	---	---	---	741	692
21	854	701	885	855	975	936	---	---	---	---	750	696
22	761	693	881	861	966	906	---	---	---	---	761	680
23	819	764	879	860	---	---	---	---	---	---	723	690
24	819	552	890	866	---	---	---	---	435	324	717	684
25	677	548	890	867	---	---	---	---	482	329	746	696
26	749	681	894	855	---	---	---	---	444	405	767	732
27	755	728	918	785	---	---	---	---	471	447	770	723
28	782	720	807	774	---	---	---	---	479	462	777	702
29	824	776	837	801	---	---	---	---	---	---	768	708
30	816	789	881	824	---	---	---	---	---	---	762	738
31	806	612	---	---	---	---	---	---	---	---	771	732
MONTH	971	548	918	600	999	750	1020	891	479	324	891	482

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	801	731	777	729	---	---	969	852	873	752	1010	995
2	776	450	848	722	---	---	819	697	783	716	1050	998
3	599	503	816	750	---	---	961	823	908	785	1040	465
4	647	602	798	582	---	---	981	961	926	882	989	953
5	629	518	777	597	---	---	993	927	984	906	966	875
6	669	606	740	685	908	881	973	939	981	960	969	861
7	720	671	785	572	897	864	976	949	1010	953	1020	971
8	728	708	755	653	902	854	994	951	977	852	1020	975
9	746	717	795	750	923	851	1020	913	956	446	990	960
10	762	717	849	794	911	716	991	937	780	588	978	963
11	747	708	845	764	875	830	984	915	905	789	999	963
12	755	719	845	770	900	870	947	873	1010	740	987	942
13	773	737	830	788	891	863	966	914	854	725	987	963
14	777	734	822	794	927	849	960	941	849	854	1010	630
15	788	752	791	761	914	834	959	938	803	548	750	558
16	783	747	804	743	866	839	957	899	889	807	879	744
17	812	741	870	777	872	846	977	842	985	621	885	729
18	813	761	855	821	864	833	968	900	845	610	891	786
19	834	774	846	813	881	548	900	857	910	855	909	693
20	824	776	887	822	749	576	918	839	962	894	780	663
21	818	779	885	855	822	752	929	852	969	940	879	774
22	801	767	872	834	897	794	935	600	975	935	936	882
23	810	756	855	822	915	870	635	513	984	852	960	936
24	792	741	---	---	908	810	794	644	980	909	966	954
25	810	741	---	---	863	837	863	801	945	742	975	960
26	821	741	---	---	855	770	944	858	939	825	996	966
27	819	764	---	---	782	656	1040	860	990	935	1000	966
28	801	654	---	---	900	744	1020	992	1010	980	1030	999
29	686	468	---	---	833	773	1000	311	1000	974	1010	993
30	774	690	---	---	960	937	522	300	1010	972	1020	993
31	---	---	---	---	---	---	750	531	1020	1000	---	---
MONTH	834	450	887	572	960	548	1040	300	1020	446	1050	465
YEAR	1050	300										

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.6	7.7	7.5	8.1	7.7	---	---			---	---
2	7.9	7.6	7.8	7.5	8.1	7.8	---	---			---	---
3	7.9	7.6	7.7	7.3	8.1	7.8	---	---			---	---
4	7.9	7.4	7.8	7.4	8.2	8.1	7.9	7.9			---	---
5	8.0	7.3	7.9	7.8	8.2	8.1	8.0	7.6			---	---
6	8.0	7.8	8.0	7.9	8.2	8.1	7.6	7.2			---	---
7	7.9	7.8	8.0	7.9	8.2	8.1	7.5	7.3			---	---
8	7.9	7.7	8.0	7.9	8.2	7.8	---	---			8.2	8.1
9	7.9	7.8	7.9	7.8	8.2	8.1	---	---			8.1	8.0
10	8.0	7.6	8.0	7.8	8.2	8.1	---	---			8.1	7.9
11	8.0	7.6	8.2	7.9	8.2	8.1	---	---			8.1	7.9
12	7.9	7.6	---	---	8.2	8.1	---	---			8.0	7.8
13	7.9	7.5	---	---	8.2	8.1	7.8	7.6			8.0	7.8
14	7.9	7.8	---	---	8.2	8.1	7.8	7.8			8.0	7.8
15	7.8	7.7	---	---	8.3	8.0	7.8	7.7			8.0	7.8
16	7.9	7.8	8.2	7.9	8.6	8.1	---	---			8.1	7.9
17	7.8	7.8	8.2	7.7	8.5	8.3	---	---			8.1	8.0
18	8.1	7.7	8.2	7.8	8.4	8.3	---	---			8.1	8.0
19	8.1	7.5	8.2	8.0	8.4	8.3	---	---			8.3	8.1
20	8.0	7.6	8.2	7.5	8.4	8.3	---	---			8.3	8.0
21	8.1	7.7	8.2	8.1	8.5	8.4	---	---			8.2	7.9
22	7.9	7.6	8.2	8.1	8.5	8.4	---	---			---	---
23	7.9	7.8	8.3	8.1	---	---	---	---			---	---
24	7.9	7.4	8.2	8.2	---	---	---	---			---	---
25	7.6	7.4	8.2	8.1	---	---	---	---			---	---
26	7.7	7.5	8.1	7.5	---	---	---	---			---	---
27	7.8	7.5	8.1	7.3	---	---	---	---			---	---
28	7.8	7.5	7.8	7.2	---	---	---	---			---	---
29	7.9	7.3	8.2	7.9	---	---	---	---			---	---
30	7.9	7.8	8.2	7.8	---	---	---	---			---	---
31	7.8	7.3	---	---	---	---	---	---			---	---
MONTH	8.1	7.3	8.3	7.2	8.6	7.7	8.0	7.2			8.3	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	---	---	7.8	7.5	8.4	8.0	8.1	7.8
2			7.8	7.6	---	---	7.7	7.4	8.3	7.9	8.1	7.8
3			7.7	7.3	---	---	7.7	7.5	8.0	7.8	---	---
4			7.9	7.3	---	---	7.8	7.6	8.1	7.8	8.1	7.8
5			8.3	7.3	---	---	8.0	7.6	8.1	7.9	8.1	7.8
6			8.3	8.1	7.8	7.7	8.0	7.7	8.2	7.9	8.0	7.8
7			---	---	7.8	7.6	8.1	7.8	8.3	8.0	8.1	7.8
8			---	---	7.7	7.6	8.0	7.8	8.1	7.9	8.1	7.9
9			---	---	7.7	7.5	7.9	7.7	8.0	7.5	8.1	7.9
10			---	---	7.7	7.4	7.8	7.6	8.0	7.9	8.1	8.0
11			---	---	7.7	7.5	7.8	7.6	8.1	7.9	8.2	8.1
12			---	---	7.7	7.5	7.8	7.6	8.0	7.9	8.2	8.1
13			---	---	7.7	7.6	7.9	7.6	8.0	7.8	8.2	8.1
14			---	---	7.7	7.6	8.1	7.7	8.0	7.7	8.3	8.0
15			---	---	7.7	7.5	8.1	7.7	7.7	7.5	8.1	7.9
16			---	---	7.8	7.5	8.1	7.7	7.9	7.7	8.1	7.8
17			---	---	7.8	7.6	8.2	7.7	7.8	7.3	8.0	7.9
18			---	---	7.8	7.6	8.2	7.8	7.8	7.6	8.2	8.0
19			---	---	7.7	7.4	8.4	7.8	7.8	7.7	8.2	8.0
20			8.0	7.9	7.7	7.4	8.4	7.9	7.9	7.7	8.1	7.8
21			7.9	7.8	7.7	7.5	8.2	7.9	7.8	7.8	8.0	7.9
22			7.9	7.7	7.6	7.5	8.0	7.7	7.9	7.7	8.1	7.8
23			7.8	7.7	7.6	7.5	7.8	7.6	7.9	7.7	8.0	7.8
24			---	---	7.7	7.5	8.1	7.8	7.8	7.7	8.0	7.9
25			---	---	7.7	7.6	8.3	8.0	7.9	7.6	8.1	7.9
26			---	---	7.7	7.5	8.2	7.9	7.9	7.7	8.1	8.0
27			---	---	7.7	7.4	8.1	7.6	8.0	7.8	8.1	8.0
28			---	---	7.7	7.5	7.9	7.6	8.0	7.8	8.2	8.1
29			---	---	7.8	7.5	7.8	7.2	7.9	7.8	8.2	8.2
30			---	---	7.9	7.6	7.5	7.2	8.0	7.8	8.3	8.1
31			---	---	---	---	7.8	7.4	8.1	7.8	---	---
MONTH			8.3	7.3	7.9	7.4	8.4	7.2	8.4	7.3	8.3	7.8
YEAR	8.6	7.2										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	13.5	7.5	6.0	0.0	0.0	---	---	---	---	5.0	3.5
2	16.5	14.0	8.0	5.5	0.5	0.0	---	---	---	---	4.5	3.0
3	17.0	14.5	8.5	6.0	0.0	0.0	---	---	---	---	5.5	4.0
4	17.0	14.5	7.0	6.0	0.0	0.0	0.5	0.5	---	---	7.0	5.5
5	17.5	15.5	6.5	5.5	0.5	0.0	0.5	0.0	---	---	7.0	5.0
6	17.0	15.5	6.5	4.5	1.5	0.0	0.5	0.0	---	---	5.5	4.0
7	15.5	13.5	6.0	5.0	1.5	1.0	0.5	0.5	---	---	5.5	4.5
8	14.0	12.5	5.0	4.0	1.0	0.0	---	---	---	---	6.5	3.5
9	13.5	12.0	5.5	3.5	0.5	0.0	---	---	---	---	9.0	6.0
10	12.5	11.0	6.0	5.0	2.0	0.0	---	---	---	---	10.5	8.0
11	12.5	10.0	5.5	4.5	2.5	2.0	---	---	---	---	11.5	8.5
12	13.5	10.5	---	---	3.5	2.5	---	---	---	---	12.0	11.0
13	15.0	12.5	---	---	2.5	0.0	1.0	0.0	---	---	12.0	10.5
14	14.0	12.0	---	---	1.0	0.0	0.5	0.0	---	---	11.0	9.5
15	14.0	12.0	---	---	2.0	0.0	0.5	0.0	---	---	12.5	9.5
16	13.0	11.5	4.0	2.5	1.5	1.0	---	---	---	---	13.0	11.5
17	11.5	10.0	4.0	2.0	2.5	1.0	---	---	---	---	11.0	9.0
18	10.0	8.0	5.0	3.5	2.0	0.5	---	---	---	---	9.0	8.0
19	9.5	8.0	6.0	4.5	3.5	1.0	---	---	---	---	8.0	7.0
20	9.5	9.0	5.5	4.0	4.0	2.5	---	---	---	---	7.5	5.5
21	10.0	8.0	4.5	4.0	2.0	0.0	---	---	---	---	8.0	4.5
22	8.5	6.5	4.0	2.5	0.0	0.0	---	---	---	---	8.5	7.0
23	7.0	6.0	3.0	1.5	---	---	---	---	---	---	8.0	6.0
24	9.5	6.0	2.0	1.5	---	---	---	---	2.0	1.5	8.0	6.0
25	10.0	9.5	4.5	1.5	---	---	---	---	3.5	1.5	9.0	6.0
26	9.5	8.0	7.5	4.5	---	---	---	---	4.5	3.5	10.5	7.0
27	8.0	6.0	9.0	7.5	---	---	---	---	4.5	3.5	11.0	9.0
28	6.5	4.5	8.0	4.5	---	---	---	---	4.0	2.5	13.0	11.0
29	6.5	4.0	4.0	0.5	---	---	---	---	---	---	15.5	12.5
30	6.5	5.5	0.5	0.0	---	---	---	---	---	---	18.0	14.5
31	8.0	6.5	---	---	---	---	---	---	---	---	16.0	11.5
MONTH	17.5	4.0	9.0	0.0	4.0	0.0	1.0	0.0	4.5	1.5	18.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	9.5	17.5	14.0	---	---	25.5	22.0	24.5	22.5	27.0	24.0
2	14.0	12.0	20.0	16.5	---	---	25.5	22.0	24.5	21.0	27.0	24.5
3	14.0	12.5	19.5	18.0	---	---	24.5	22.0	24.5	21.5	26.5	24.5
4	13.0	11.5	18.5	18.0	---	---	26.0	22.0	25.0	22.5	25.5	22.5
5	12.0	8.5	20.5	18.0	---	---	28.5	24.5	26.0	24.0	25.5	23.5
6	8.5	7.0	20.5	19.5	22.0	20.5	29.5	26.0	27.0	24.5	24.5	23.5
7	9.5	6.0	19.5	17.5	20.5	18.0	29.5	27.0	26.5	25.0	24.5	22.5
8	11.0	9.0	19.0	17.0	19.0	17.0	29.5	26.5	25.5	23.5	24.5	21.5
9	11.0	8.5	17.5	15.0	20.0	16.0	28.0	26.5	24.5	23.0	23.5	21.5
10	14.0	9.5	16.5	13.5	20.5	16.5	26.0	24.0	24.5	23.5	23.0	21.0
11	17.0	12.5	17.5	13.5	20.0	18.5	25.5	23.0	25.0	23.5	21.0	18.5
12	18.5	15.0	18.0	15.0	22.0	18.5	26.0	24.0	24.0	22.5	19.0	17.5
13	19.0	15.5	20.0	15.5	22.5	19.5	28.0	24.0	23.5	22.0	20.5	17.5
14	18.5	16.5	21.0	18.0	22.5	21.0	29.0	25.0	24.5	21.5	21.0	19.0
15	17.5	15.5	22.0	18.5	24.0	20.5	29.0	26.5	25.5	23.0	20.0	18.5
16	18.5	15.0	22.5	19.0	24.5	21.5	28.5	27.0	26.0	23.5	20.5	19.0
17	19.0	16.5	23.0	19.5	26.0	22.5	29.0	25.5	25.5	24.0	22.0	19.5
18	20.0	16.5	24.0	20.5	25.0	23.5	29.0	26.0	24.0	21.5	23.0	20.5
19	19.5	18.0	25.0	21.5	24.0	22.5	29.5	26.5	22.0	20.0	22.0	21.0
20	20.5	17.5	25.5	22.0	24.5	22.0	29.5	26.5	22.0	19.0	21.0	18.5
21	20.0	18.0	25.0	22.0	24.0	21.0	29.0	26.5	21.0	20.0	18.5	16.5
22	19.0	18.0	24.0	22.0	22.5	19.5	27.5	25.5	20.0	19.5	18.0	15.0
23	18.0	16.5	23.5	21.5	21.5	18.5	26.0	23.0	22.5	20.0	19.0	16.5
24	16.5	15.0	---	---	22.5	20.5	26.0	22.5	22.0	21.0	19.5	18.5
25	15.0	12.0	---	---	24.0	22.0	26.5	24.5	21.5	19.0	20.5	18.5
26	14.0	11.0	---	---	26.0	22.0	25.5	22.5	22.5	19.5	21.0	19.0
27	16.0	11.5	---	---	25.0	23.0	24.5	21.5	24.5	21.5	20.0	18.0
28	15.5	13.0	---	---	25.5	23.0	24.5	20.5	26.0	23.0	18.5	17.0
29	14.0	11.0	---	---	26.0	23.0	24.0	22.0	25.0	24.0	18.0	15.5
30	15.5	12.0	---	---	24.5	22.0	24.0	21.5	25.5	23.5	18.0	15.5
31	---	---	---	---	---	---	25.0	22.0	26.0	23.0	---	---
MONTH	20.5	6.0	25.5	13.5	26.0	16.0	29.5	20.5	27.0	19.0	27.0	15.0
YEAR	29.5	0.0										

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.9	6.0	10.0	7.2	13.2	10.5	---	---	---	---	10.5	10.2
2	7.3	6.2	9.9	8.2	13.1	10.7	---	---	---	---	10.3	10.0
3	6.9	6.0	9.6	7.4	13.5	11.2	---	---	---	---	10.0	9.4
4	7.0	5.9	10.2	7.9	13.1	11.2	10.7	9.7	---	---	9.4	7.8
5	6.9	5.5	10.6	8.1	13.4	11.0	11.4	9.3	---	---	9.6	8.7
6	5.7	5.1	11.4	8.6	12.8	11.1	11.1	9.5	---	---	9.9	9.5
7	5.7	5.2	11.8	8.6	11.0	9.5	9.5	9.4	---	---	10.2	9.5
8	7.0	5.5	12.6	9.0	13.0	9.0	---	---	---	---	10.1	9.6
9	6.8	6.2	12.6	9.3	13.6	11.1	---	---	---	---	9.5	8.9
10	7.1	6.3	12.1	8.3	13.0	10.8	---	---	---	---	8.9	8.6
11	8.1	6.9	13.1	8.4	12.6	9.3	---	---	---	---	8.7	8.2
12	7.8	6.8	---	---	11.6	8.2	---	---	---	---	8.1	6.6
13	7.1	6.2	---	---	13.2	9.4	10.6	9.6	---	---	8.3	6.8
14	7.3	6.0	---	---	13.8	10.4	9.5	8.1	---	---	8.6	8.3
15	7.6	6.2	---	---	13.8	10.6	9.3	7.4	---	---	8.7	8.2
16	8.0	6.2	14.5	11.6	11.6	9.8	---	---	---	---	8.5	7.8
17	8.4	6.6	14.5	9.9	12.9	9.2	---	---	---	---	8.9	8.1
18	9.3	7.3	13.8	9.3	13.0	9.8	---	---	---	---	8.5	7.6
19	9.5	7.4	13.4	8.4	12.7	9.7	---	---	---	---	10.0	8.6
20	7.2	6.4	13.0	8.3	9.8	8.1	---	---	---	---	9.7	9.1
21	7.2	6.1	12.4	8.5	13.0	8.4	---	---	---	---	10.6	9.6
22	9.0	6.5	12.5	8.6	11.5	9.4	---	---	---	---	9.4	8.4
23	8.9	7.4	13.9	9.1	---	---	---	---	---	---	10.5	9.4
24	8.0	6.0	13.0	9.5	---	---	---	---	10.5	10.1	10.4	9.2
25	6.7	6.2	12.8	9.1	---	---	---	---	10.9	10.3	10.3	9.0
26	8.1	6.7	9.7	7.3	---	---	---	---	10.2	9.8	10.4	8.6
27	9.2	7.6	7.6	5.3	---	---	---	---	10.1	9.6	9.9	8.3
28	9.9	8.5	7.4	5.6	---	---	---	---	10.6	10.1	8.1	7.4
29	10.1	8.5	11.0	7.4	---	---	---	---	---	---	9.8	7.1
30	9.0	8.1	12.3	9.7	---	---	---	---	---	---	9.2	6.1
31	8.1	6.9	---	---	---	---	---	---	---	---	8.6	6.1
MONTH	10.1	5.1	14.5	5.3	13.8	8.1	11.4	7.4	10.9	9.6	10.6	6.1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	7.1	9.0	6.8	---	---	7.0	4.4	5.7	4.4	9.2	4.6
2	8.2	5.3	7.8	6.0	---	---	6.5	3.7	5.2	4.9	9.4	4.6
3	7.4	6.2	6.6	5.5	---	---	6.5	4.1	5.7	4.5	9.2	5.7
4	7.4	7.1	5.4	4.8	---	---	6.8	4.4	6.0	4.3	8.9	4.9
5	8.7	6.2	5.8	5.0	---	---	7.7	4.1	7.0	4.3	8.9	4.6
6	9.6	8.7	5.9	5.1	8.7	6.9	7.8	4.2	8.8	4.7	8.0	4.7
7	10.5	9.2	6.5	4.5	8.9	5.3	8.7	3.9	9.3	4.4	9.6	4.8
8	10.6	9.2	6.7	6.4	8.1	5.6	7.4	3.7	6.0	4.6	9.5	5.0
9	10.8	9.5	7.2	6.8	7.7	5.3	6.5	3.2	5.7	3.3	10.5	5.1
10	9.8	8.7	7.5	7.0	9.5	4.6	5.7	3.4	5.5	5.0	8.8	5.6
11	9.2	7.6	7.5	6.9	7.3	5.4	7.4	3.5	6.0	4.5	8.7	5.9
12	9.3	6.8	7.3	6.8	7.8	5.1	7.7	3.6	5.3	4.1	7.8	6.2
13	9.4	6.6	6.9	6.2	8.0	5.2	8.6	3.9	5.8	4.6	8.1	6.0
14	8.7	6.3	6.5	6.0	7.2	5.1	9.6	4.0	5.8	4.3	6.4	4.3
15	8.6	6.3	6.4	5.7	8.1	4.4	9.8	4.0	5.6	5.0	7.3	4.4
16	9.4	6.7	6.6	5.4	8.4	5.0	8.2	4.2	5.7	4.7	6.5	5.5
17	8.3	6.1	6.3	5.4	8.4	5.0	11.1	4.2	5.3	4.0	6.7	5.0
18	8.7	6.1	6.7	5.2	9.0	4.9	11.5	4.3	6.1	4.8	6.7	5.0
19	7.2	5.7	6.8	5.0	5.9	3.5	9.3	4.2	6.7	5.3	5.2	4.5
20	8.1	5.2	6.8	4.6	6.6	4.1	7.4	4.6	7.0	5.7	6.1	4.0
21	7.5	5.3	6.8	4.5	6.8	4.5	9.8	4.1	6.6	5.6	6.3	5.1
22	6.9	5.3	7.1	4.7	6.2	4.5	5.6	2.9	7.0	5.3	7.2	5.8
23	7.0	4.6	6.7	4.8	7.1	5.0	5.3	3.6	7.3	4.9	6.8	5.4
24	7.9	5.7	---	---	7.4	4.5	6.6	3.9	5.8	5.0	6.2	5.0
25	8.1	6.2	---	---	7.8	4.8	6.7	3.8	7.3	4.5	6.9	4.8
26	9.8	7.2	---	---	6.6	4.2	6.9	4.4	7.4	5.8	6.8	4.7
27	10.3	7.4	---	---	7.7	4.0	9.0	5.9	7.6	5.4	6.7	4.8
28	7.4	6.2	---	---	6.9	4.0	10.3	5.2	8.0	5.1	6.5	4.7
29	8.8	4.0	---	---	7.5	3.8	7.5	1.0	7.7	4.9	7.8	5.1
30	9,5	7.6	---	---	9.1	5.0	4.9	3.9	6.4	4.9	7.9	5.6
31	---	---	---	---	---	---	5.2	4.6	8.8	4.7	---	---
MONTH	10.8	4.0	9.0	4.5	9.5	3.5	11.5	1.0	9.3	3.3	10.5	4.0
YEAR	14.5	1.0										

03242150 CAESAR CREEK NEAR XENIA, OH

LOCATION.--Lat 39°37'25", long 83°54'09", Greene County, Hydrologic Unit 05090202, on left bank at downstream side of bridge on Winchester Road, 0.2 mi (0.3 km) downstream from unnamed left bank tributary, 4.5 mi (7.2 km) south of Xenia, and 7.4 mi (11.9 km) upstream from Anderson Fork.

DRAINAGE AREA.--71.4 mi² (185 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 894.18 ft (272.546 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair. Since 1964, some regulation by seasonal changes in storage in Lake Shawnee, 7.2 mi (11.6 km) upstream, drainage area 10.9 mi² (28.2 km²). Summer storage is about 1,100 acre-ft (1.36 hm³) more than winter.

AVERAGE DISCHARGE.--9 years, 74.6 ft³/s (2.113 m³/s), 14.19 in/yr (360 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,170 ft³/s (146 m³/s) July 4, 1975, gage height, 13.47 ft (4.106 m) from rating curve extended above 1,240 ft³/s (35.1 m³/s) on the basis of rating extension study; minimum daily, 0.42 ft³/s (0.012 m³/s) July 20, 21, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 24, 1968, reached a stage of 15.9 ft (4.846 m) outside, from flood mark; discharge, 12,500 ft³/s (354 m³/s) result of contracted opening estimate.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 400 ft³/s (11.33 m³/s) Feb. 23 (base 1,000 ft³/s, 28.3 m³/s); minimum daily discharge, 0.42 ft³/s (0.012 m³/s) July 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	4.2	3.3	1.4	1.3	162	21	18	4.2	2.9	6.2	1.4
2	2.4	4.2	3.1	1.4	1.3	52	190	27	3.4	3.6	3.9	1.3
3	2.0	3.9	3.0	1.4	1.3	48	192	20	3.1	3.9	2.0	1.3
4	2.0	3.4	3.0	1.4	1.3	250	153	23	2.9	2.2	1.4	1.1
5	1.7	2.9	3.1	1.4	1.3	199	254	39	2.4	1.7	1.5	1.2
6	1.7	2.6	3.1	1.4	1.3	124	134	60	2.4	1.5	1.7	1.2
7	2.0	2.4	3.1	1.4	1.3	92	110	150	2.4	2.2	2.4	1.2
8	2.2	2.4	3.2	1.4	1.4	75	83	83	2.6	3.4	3.6	1.2
9	2.9	2.4	3.1	1.4	1.5	67	63	51	2.9	3.4	47	1.2
10	3.4	2.4	3.0	1.4	1.7	41	55	32	2.9	4.9	6.2	1.1
11	2.9	2.9	2.8	1.4	3.5	31	46	26	2.9	4.6	2.9	1.1
12	3.1	2.9	2.6	1.4	20	42	39	21	2.9	2.2	9.8	1.1
13	2.4	2.9	2.4	1.4	32	118	35	19	2.9	2.0	7.1	.83
14	2.4	2.9	2.3	1.4	20	78	32	16	3.1	1.4	47	1.6
15	2.4	44	2.2	1.4	16	58	30	16	2.9	1.2	26	1.7
16	2.0	113	2.1	1.4	14	44	32	14	2.4	1.1	10	6.0
17	2.0	99	2.1	1.4	13	34	32	10	2.0	1.1	7.0	9.6
18	2.0	85	2.0	1.4	12	73	32	9.2	1.7	1.4	5.3	5.4
19	2.0	70	2.2	1.3	11	75	31	8.6	1.7	1.5	3.5	3.7
20	3.4	58	2.5	1.3	10	61	27	7.5	2.6	.42	2.6	3.6
21	5.3	47	3.0	1.3	20	49	19	6.6	2.4	.42	2.4	3.6
22	5.3	39	2.5	1.3	55	78	17	6.2	2.0	29	2.8	3.2
23	4.9	31	2.1	1.3	400	73	23	5.7	2.0	4.9	2.8	2.6
24	6.6	26	1.9	1.3	340	54	24	5.3	2.0	2.6	2.8	2.3
25	10	22	1.8	1.3	150	44	24	5.3	2.2	1.8	2.8	1.7
26	6.6	21	1.7	1.3	100	37	19	5.3	2.2	1.4	2.6	1.7
27	4.9	18	1.6	1.3	85	32	14	4.9	1.7	.82	2.1	1.7
28	3.6	15	1.5	1.3	72	40	19	4.9	2.9	.74	1.8	1.7
29	3.1	14	1.5	1.3	---	40	37	4.6	2.0	.66	1.4	1.7
30	2.6	3.6	1.4	1.3	---	33	21	4.6	1.7	.82	1.4	1.7
31	2.9	---	1.4	1.3	---	26	---	4.9	---	2.4	1.4	---
TOTAL	103.3	748.0	74.6	42.1	1387.2	2230	1808	708.6	75.4	92.18	221.4	68.73
MEAN	3.33	24.9	2.41	1.36	49.5	71.9	60.3	22.9	2.51	2.97	7.14	2.29
MAX	10	113	3.3	1.4	400	250	254	150	4.2	29	47	9.6
MIN	1.7	2.4	1.4	1.3	1.3	26	14	4.6	1.7	.42	1.4	.83
CFSM	.05	.35	.03	.02	.69	1.01	.85	.32	.04	.04	.10	.03
IN.	.05	.39	.04	.02	.72	1.16	.94	.37	.04	.05	.12	.04

CAL YR 1976 TOTAL 17597.80 MEAN 48.1 MAX 1710 MIN 1.2 CFSM .67 IN 9.17
WTR YR 1977 TOTAL 7559.51 MEAN 20.7 MAX 400 MIN .42 CFSM .29 IN 3.94

03242150 CAESAR CREEK NEAR XENIA, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 03...	1250	47	575	7.7	3.0	11.6	86	1.0	300	68	67	32
JUN 14...	1445	3.6	645	7.7	21.5	7.9	89	2.5	310	65	68	34

DATE	DISSOLVED SODIUM (NA) (MG	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 03...	11	2.2	282	0	231	9.0	48	30	.2	5.7	335	2.9
JUN 14...	11	2.4	298	0	244	9.5	43	27	.2	6.8	339	.65

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 03...	.03	.39	.09	1	40	4	20	1	70	.0	40	8.2
JUN 14...	.01	.06	.08	2	<10	5	40	0	20	.4	20	4.9

03242200 ANDERSON FORK NEAR NEW BURLINGTON, OH

LOCATION.--Lat 39°33'59", long 83°54'10", Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on Old Winchester Trail, 1.0 mi (1.6 km) downstream from Painters Run, 3.4 mi (5.5 km) east of New Burlington, and 5.0 mi (8.0 km) upstream from mouth.

DRAINAGE AREA.--77.8 mi^2 (202 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 883.67 ft (269.343 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--9 years, 79.2 ft^3/s (2.243 m^3/s), 13.82 in/yr (351 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,510 ft^3/s (156 m^3/s) Feb. 24, 1975, gage height, 12.76 ft (3.889 m); minimum, 0.08 ft^3/s (0.002 m^3/s) Sept. 24, 25, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 24, 1968 reached a stage of 15.7 ft (4.785 m), present datum, from floodmarks, discharge about 9,400 ft^3/s (266 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 452 ft^3/s (12.8 m^3/s) Feb. 24, gage height, 6.15 ft (1.875 m), no peak above base of 1,000 ft^3/s (28.3 m^3/s); minimum, 0.45 ft^3/s (0.013 m^3/s) Feb. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.2	1.7	.96	.46	59	25	43	18	12	3.1	1.8
2	1.4	4.4	1.5	.94	.46	45	131	80	14	12	2.7	1.5
3	1.2	4.2	1.4	.90	.46	45	210	95	12	10	2.1	1.4
4	1.1	3.7	1.3	.86	.46	293	141	75	8.5	7.5	1.8	1.3
5	.99	3.5	1.3	.82	.46	223	187	109	7.8	6.5	1.7	1.4
6	1.5	3.0	1.3	.80	.45	131	140	126	7.4	5.6	1.3	1.8
7	2.3	3.0	1.4	.76	.45	92	110	193	7.4	4.9	1.1	1.8
8	2.0	2.8	1.4	.74	.45	67	87	217	7.0	5.1	2.3	1.5
9	1.8	2.6	1.4	.70	.45	55	66	123	8.1	5.2	2.2	1.3
10	1.7	2.3	1.4	.68	.60	45	57	84	8.1	7.0	1.6	1.7
11	1.6	2.3	1.3	.66	2.0	37	48	64	6.7	6.2	3.0	1.4
12	1.6	2.3	1.3	.64	18	43	40	52	6.4	5.2	8.2	1.2
13	2.0	3.7	1.3	.62	16	123	37	43	6.4	4.3	7.0	1.1
14	1.8	4.2	1.2	.60	14	95	36	39	90	3.9	6.5	1.7
15	1.7	4.0	1.2	.58	13	67	31	34	81	3.4	24	1.6
16	1.6	4.0	1.2	.56	12	52	27	28	39	3.0	13	9.8
17	1.6	3.5	1.2	.55	12	40	25	25	26	30	11	18
18	1.5	2.8	1.3	.54	11	111	23	23	24	9.2	60	17
19	1.4	2.3	1.4	.53	10	135	22	19	67	5.2	24	12
20	1.8	2.1	1.6	.52	10	95	18	17	27	3.9	12	8.9
21	4.4	2.1	2.0	.51	20	72	18	16	19	3.2	7.8	8.3
22	5.2	2.0	1.8	.50	68	104	16	14	14	3.9	6.7	6.4
23	4.2	1.8	1.6	.50	333	95	17	16	13	2.8	5.3	5.1
24	7.4	1.7	1.5	.50	359	70	22	14	11	2.9	5.2	4.4
25	9.3	1.7	1.4	.50	228	55	23	13	10	2.6	5.1	3.8
26	7.0	2.0	1.3	.48	140	47	22	12	9.8	2.2	5.4	3.7
27	5.8	2.3	1.2	.48	108	41	19	12	8.2	1.9	5.0	3.3
28	4.7	2.6	1.2	.47	75	43	33	11	7.8	1.6	3.8	2.9
29	3.3	3.7	1.1	.47	---	41	94	10	9.7	1.5	3.2	2.7
30	2.8	2.5	1.0	.47	---	35	57	64	9.1	1.5	2.6	2.4
31	3.3	---	1.0	.46	---	31	---	30	---	1.6	1.9	---
TOTAL	89.69	87.3	42.2	19.30	1453.70	2487	1782	1701	583.4	175.8	240.6	131.2
MEAN	2.89	2.91	1.36	.62	51.9	80.2	59.4	54.9	19.4	5.67	7.76	4.37
MAX	9.3	4.4	2.0	.96	359	293	210	217	90	30	60	18
MIN	.99	1.7	1.0	.46	.45	31	16	10	6.4	1.5	1.1	1.1
CFSM	.04	.04	.02	.008	.67	1.03	.76	.71	.25	.07	.10	.06
IN.	.04	.04	.02	.01	.70	1.19	.85	.81	.28	.08	.12	.06

CAL YR 1976 TOTAL 15177.12 MEAN 41.5 MAX 1750 MIN .72 CFSM .53 IN 7.26
WTR YR 1977 TOTAL 8793.19 MEAN 24.1 MAX 359 MIN .45 CFSM .31 IN 4.20

03242200 ANDERSON FORK NEAR NEW BURLINGTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
03...	1015	40	650	7.7	2.5	12.0	88	.5	340	91	80	33
JUN												
20...	1430	27	665	8.1	25.5	7.7	94	1.5	310	120	72	31

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
03...	19	1.9	298	0	244	9.5	60	48	.2	6.8	396	4.6
JUN												
20...	9.5	2.0	232	0	190	2.9	49	30	.2	8.4	317	12

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
03...	.03	.12	.06	0	40	2	20	3	20	.0	20	2.6
JUN												
20...	.05	.03	.16	2	10	4	20	8	10	.1	40	7.8

03245500 LITTLE MIAMI RIVER AT MILFORD, OH

NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION

LOCATION.--Lat 39°10'17", long 84°17'53", Clermont County, Hydrologic Unit 05090202, on right bank 500 ft (152 m) downstream from Wooster Pike Bridge on U.S. Highway 50 in Milford, 1.2 mi (1.9 km) upstream from East Fork, and 6.4 mi (10.3 km) downstream from North Branch Creek.

DRAINAGE AREA.--1,203 mi² (3,116 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1915 to September 1917, October 1917 to May 1920 (gage heights only), March 1925 to September 1936, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305, published as "at Miamiville" 1915-20.

REVISED RECORDS.--WSP 728: 1931. WSP 743: 1932. WSP 873: 1925-36. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 499.35 ft (152.202 m) above mean sea level, adjustment of 1912. June 22, 1915, to May 14, 1920, nonrecording gage at site 4 mi (6 km) upstream at different datum. Mar. 11, 1925, to Aug. 16, 1928, nonrecording gage at bridge 500 ft (152 m) upstream at datum 0.72 ft (0.219 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation since 1948 by Cowan Lake, capacity, 12,000 acre-ft (14.8 hm³), 45 mi (72 km) upstream on Cowan Creek, tributary to Todd Fork, and Caesar Creek Reservoir capacity 242,200 acre-ft (298.6 hm³) 41.3 mi (66.4 km) upstream on Caesar Creek. Annual figures of runoff are considered to be within 10 percent of natural yield.

AVERAGE DISCHARGE.--52 years, (1915-17, 1925-36, 1938-77), 1,217 ft³/s (34.47 m³/s), 13.74 in/yr (349 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,100 ft³/s (2,380 m³/s) Jan. 22, 1959, gage height, 22.30 ft (6.797 m), from rating curve extended above 60,000 ft³/s (1,700 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 27 ft³/s (0.76 m³/s) Sept. 18, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 25.5 ft (7.77 m), present datum, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,320 ft³/s (207 m³/s) Mar. 4 (base, 15,000 ft³/s, 425 m³/s), gage height, 5.39 ft (1.643 m); minimum daily discharge, 86 ft³/s (2.43 m³/s) Jan. 8-17, Feb. 4-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	371	190	90	88	1020	450	653	229	613	221	116
2	174	314	180	90	88	887	1350	2240	212	393	194	113
3	159	276	170	90	88	936	4600	1270	194	272	200	134
4	144	252	160	92	86	5890	2520	978	181	208	156	111
5	135	230	150	96	86	3970	4550	2340	174	174	131	109
6	144	228	160	90	86	2100	3090	2370	170	153	119	109
7	153	213	174	88	86	1420	2020	4010	161	139	114	111
8	150	197	174	86	86	1120	1490	3160	161	130	355	108
9	150	187	184	86	86	762	1180	1570	234	120	284	108
10	144	181	184	86	86	807	978	1060	226	202	261	101
11	147	181	184	86	110	719	867	828	222	351	312	98
12	153	178	181	86	250	880	775	688	202	254	700	98
13	141	174	181	86	700	2410	688	591	184	239	384	96
14	135	171	171	86	960	1710	641	522	224	176	300	97
15	129	168	165	86	600	1210	596	470	255	151	379	118
16	124	168	159	86	520	957	558	428	336	132	324	207
17	121	170	159	86	460	788	516	391	256	120	731	190
18	121	200	162	88	440	3750	492	369	209	123	634	230
19	119	260	159	90	420	2670	468	351	197	162	359	239
20	141	300	159	90	400	1620	450	335	249	151	278	213
21	184	260	160	90	390	1330	433	319	252	202	218	212
22	194	240	140	90	380	1650	428	302	225	114	203	174
23	190	220	130	90	550	1700	433	283	225	131	190	156
24	346	210	120	90	3300	1220	628	279	194	172	236	135
25	428	200	110	90	3800	915	801	287	302	187	211	127
26	411	210	110	90	2240	719	664	260	1120	156	221	118
27	277	240	100	90	1600	628	540	262	383	117	175	108
28	266	220	98	88	1290	622	474	240	337	102	152	101
29	234	210	96	88	---	694	775	225	439	98	141	93
30	241	200	94	88	---	615	833	212	273	421	130	91
31	367	---	92	88	---	516	---	201	---	413	120	---
TOTAL	6016	6621	4656	2746	19276	46235	34288	27494	8026	6376	8433	4021
MEAN	194	221	150	88.6	688	1491	1143	887	268	206	272	134
MAX	428	371	190	96	3800	5890	4600	4010	1120	613	731	239
MIN	119	168	92	86	86	516	428	201	161	98	114	91
CFSM	.16	.18	.13	.07	.57	1.24	.95	.74	.22	.17	.23	.11
IN.	.19	.20	.14	.08	.60	1.43	1.06	.85	.25	.20	.26	.12

CAL YR 1976 TOTAL 278587 MEAN 761 MAX 15900 MIN 89 CFSM .63 IN 8.61
WTR YR 1977 TOTAL 174188 MEAN 477 MAX 5890 MIN 86 CFSM .40 IN 5.39

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1975 to current year.
pH: May 1975 to current year.
WATER TEMPERATURES: May 1975 to current year.
DISSOLVED OXYGEN: May 1975 to current year.
SUSPENDED SEDIMENT DISCHARGE: January 1975 to current year (periodic).

INSTRUMENTATION.--Water-quality monitor since May 1975. Prior to May 1975, sampling site was 4.2 mi (6.76 km) upstream.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,200 micromhos Feb. 12, 1977; minimum, 197 micromhos July 4, 1975.
pH: Maximum, 9.3 units June 10, 1977; minimum, 7.2 units Aug. 20, 1975, July 21, 1977.
WATER TEMPERATURES: Maximum, 33.0°C July 8, 18, 20, 1977; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on many days during 1976 and 1977; minimum, 3.8 mg/L July 21, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,200 micromhos Feb. 12; minimum, 374 micromhos Mar. 18.
pH: Maximum, 9.3 units June 10; minimum, 7.2 units July 21.
WATER TEMPERATURES: Maximum, 33.0°C July 8, 18, 20; minimum, 0.0°C on many days during winter period.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L on many days during December, May to July; minimum, 3.8 mg/L July 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT											
13...	1030	168	885	8.2	15.0	9	8.8	86	18	200	390
NOV											
09...	1130	187	800	8.9	5.0	--	13.3	100	2	4	--
DEC											
06...	1500	159	825	8.2	1.0	--	13.0	93	14	14	--
JAN											
12...	1600	86	1060	8.1	.0	--	10.9	75	14	130	--
FEB											
10...	1000	86	1040	7.7	.0	5	10.3	70	27	130	390
MAR											
08...	1600	1120	680	8.2	6.5	--	11.5	94	28	350	--
APR											
05...	1600	4700	505	8.0	10.0	85	10.0	88	3000	17000	220
MAY											
04...	0930	978	580	8.1	18.0	--	7.4	78	1200	780	--
JUN											
02...	1530	210	750	8.9	26.0	--	17.0	210	2500	290	--
JUL											
12...	1600	280	570	8.4	27.0	1	10.5	130	1200	1700	240
AUG											
09...	1430	252	528	7.6	26.0	--	7.2	88	3200	2600	--
SEP											
20...	1130	213	860	8.1	22.5	--	6.9	78	1300	310	--

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 13...	110	98	35	50	4.1	342	0	281	3.5	61	90
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	--	--	--	--	--	--	--	--	--	--	--
FEB 10...	85	97	37	63	4.3	377	0	309	12	78	100
MAR 08...	--	--	--	--	--	--	--	--	--	--	--
APR 05...	75	58	19	14	3.2	180	0	150	2.9	49	31
MAY 04...	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	--	--	--	--	--	--	--	--	--	--	--
JUL 12...	63	63	21	29	3.5	220	0	180	1.4	42	48
AUG 09...	--	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL NITROGEN (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)
OCT 13...	.3	7.0	527	514	2.1	.75	2.9	13	.85	4.3	5800
NOV 09...	--	--	--	--	1.7	.48	2.2	9.7	.53	--	450
DEC 06...	--	--	--	--	2.1	.83	2.9	13	.80	--	4100
JAN 12...	--	--	--	--	3.5	1.8	5.3	23	1.3	--	3500
FEB 10...	.3	6.6	630	572	3.0	2.4	5.4	24	1.5	4.4	12000
MAR 08...	--	--	--	--	5.4	1.0	6.4	28	.27	--	1500
APR 05...	.2	6.3	323	270	3.3	1.9	5.2	23	.32	8.0	1400
MAY 04...	--	--	--	--	2.6	1.0	3.6	16	.32	--	22000
JUN 02...	--	--	--	--	.00	1.6	1.6	7.1	.50	--	65000
JUL 12...	.2	1.2	342	316	.38	1.4	1.8	7.9	.43	4.7	--
AUG 09...	--	--	--	--	.91	2.1	3.0	13	.58	--	--
SEP 20...	--	--	--	--	2.1	1.0	3.1	14	.90	--	--

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

ANALYSES OF MINOR ELEMENTS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT												
13...	1030	2	1	1	0	<10	<10	1	1	0	0	550
FEB												
10...	1000	1	1	0	0	<10	<10	0	0	20	20	100
APR												
05...	1600	1	1	0	0	20	2	3	0	14	14	6600
JUL												
12...	1600	2	2	0	0	<10	0	3	0	3	3	1200

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT											
13...	10	9	3	40	10	<.5	<.5	0	0	10	10
FEB											
10...	10	5	1	30	30	<.5	<.5	0	0	20	20
APR											
05...	30	14	0	190	10	.0	.0	0	0	10	10
JUL											
12...	0	3	0	120	10	4.6	.0	0	0	20	10

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT					
13...	1030	166	15.0	22	10
NOV					
09...	1130	187	5.0	2	1.0
DEC					
06...	1500	159	1.0	6	2.6
JAN					
12...	1600	86	.0	3	.70
FEB					
10...	1000	86	.0	4	.93
MAR					
08...	1600	1120	6.5	29	88
APR					
05...	1600	4700	10.0	208	2640
MAY					
04...	0930	976	18.0	56	148
JUN					
02...	1530	210	26.0	23	13
JUL					
12...	1600	280	27.0	66	50
AUG					
09...	1430	252	26.0	262	178
SEP					
20...	1130	213	22.5	78	45

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	813	713	738	671	864	821	1010	983	1030	983	---	---
2	825	776	789	713	864	830	1020	989	1020	989	---	---
3	843	791	804	756	890	852	1010	980	1030	989	---	---
4	840	809	824	788	912	863	1010	965	1040	986	---	---
5	852	776	836	791	891	821	1020	968	1090	1010	---	---
6	803	753	834	758	846	822	1000	966	1130	1060	---	---
7	792	728	785	719	867	831	1020	984	1130	1060	---	---
8	798	737	794	752	932	881	1090	1020	1100	1050	---	---
9	833	800	828	780	951	896	1120	1080	1100	1050	---	---
10	857	819	836	788	942	896	1110	1050	1080	1030	---	---
11	855	815	836	803	935	894	1080	1040	1170	1030	---	---
12	872	834	851	807	941	894	1080	1030	1200	975	---	---
13	897	851	857	816	921	879	1070	1010	975	692	---	---
14	888	855	861	819	941	887	1050	1010	728	633	---	---
15	920	869	858	812	930	896	1050	1010	741	656	---	---
16	903	864	854	806	942	906	1080	1030	650	623	---	---
17	875	840	869	813	939	884	1130	1080	675	638	704	687
18	888	845	845	713	926	870	1130	1100	690	662	699	374
19	891	855	717	635	915	870	1120	1060	738	687	521	383
20	866	839	663	603	902	872	1080	1040	797	741	581	525
21	873	749	639	599	894	875	1080	1040	813	774	614	582
22	854	768	641	584	924	882	1070	1040	836	759	623	597
23	863	822	657	602	944	893	1080	1030	792	516	615	588
24	856	654	719	642	971	906	1060	1010	---	---	635	618
25	788	669	789	717	960	920	1030	992	455	437	665	632
26	786	756	792	744	954	906	1050	996	471	459	686	660
27	798	719	794	755	939	902	1090	1040	---	---	704	672
28	785	731	801	753	953	900	1080	1030	---	---	698	678
29	810	773	800	765	996	932	1060	1010	---	---	711	680
30	794	683	854	794	968	927	1040	986	---	---	704	672
31	698	597	---	---	1020	945	1020	977	---	---	698	675
MONTH	920	597	869	584	1020	821	1130	965	1200	437	711	374

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	699	678	704	627	797	740	617	524	864	705	885	863
2	693	572	614	392	789	728	597	522	695	494	896	866
3	527	459	531	404	771	710	627	600	488	446	864	818
4	561	464	624	540	755	713	615	584	468	446	839	788
5	558	474	639	383	753	717	605	573	506	468	806	774
6	572	524	563	416	764	738	600	573	561	506	839	803
7	597	570	527	393	774	731	632	603	614	560	855	815
8	645	594	546	435	770	741	644	633	666	377	897	849
9	663	642	605	549	786	729	651	642	555	419	914	878
10	677	653	648	606	744	723	653	497	600	537	905	878
11	692	662	699	650	774	735	630	462	735	617	911	888
12	687	662	714	687	798	759	606	467	660	444	941	897
13	693	662	735	713	789	758	654	603	662	594	971	938
14	698	666	753	729	774	735	626	564	624	576	977	954
15	708	674	755	735	759	717	635	585	606	566	996	921
16	716	689	770	743	780	704	684	636	743	615	960	899
17	723	695	765	743	753	714	696	677	722	435	897	810
18	713	689	764	744	753	723	711	687	612	506	893	855
19	729	699	768	734	737	699	707	695	---	---	932	855
20	729	699	767	729	701	681	735	707	---	---	909	821
21	735	710	764	714	744	705	720	434	---	---	897	762
22	746	732	762	729	773	738	711	488	---	---	789	755
23	767	746	765	728	777	708	764	713	819	765	842	798
24	764	707	774	723	771	731	783	765	812	641	837	807
25	719	633	776	747	779	491	788	624	756	642	840	813
26	695	665	783	734	596	431	753	690	798	756	860	827
27	686	666	774	719	503	446	729	696	846	794	872	848
28	708	681	779	719	560	501	780	732	869	831	869	843
29	708	671	767	728	609	492	800	710	870	807	840	810
30	714	689	764	726	611	585	890	738	878	839	840	813
31	---	---	785	741	---	---	845	693	872	834	---	---
MONTH	767	459	785	383	798	431	890	434	878	377	996	755
YEAR	1200	374										

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.4	8.2	8.7	8.4	8.7	8.5	8.4	8.3	7.9	7.8	---	---
2	8.5	8.3	8.7	8.4	8.6	8.4	8.4	8.3	8.0	7.8	---	---
3	8.5	8.3	8.7	8.4	8.6	8.5	8.4	8.3	8.0	7.9	---	---
4	8.5	8.3	8.7	8.5	8.5	8.4	8.4	8.3	7.9	7.9	---	---
5	8.6	8.3	8.7	8.5	8.5	8.3	8.4	8.3	8.0	7.9	---	---
6	8.4	8.3	8.8	8.6	8.4	8.2	8.3	8.2	8.0	7.9	---	---
7	8.3	8.2	8.9	8.6	8.3	8.2	8.3	8.1	7.9	7.9	---	---
8	8.4	8.2	9.0	8.8	8.3	8.1	8.4	8.1	7.9	7.8	---	---
9	8.5	8.3	9.0	8.9	8.4	8.2	8.2	8.1	7.9	7.8	---	---
10	8.5	8.3	9.0	8.9	8.4	8.3	8.2	8.1	7.9	7.7	---	---
11	8.6	8.3	9.0	8.9	8.4	8.3	8.1	8.0	7.9	7.8	---	---
12	8.7	8.4	9.1	9.0	8.4	8.3	8.1	8.0	7.8	7.8	---	---
13	8.7	8.4	9.1	9.0	8.4	8.3	8.1	7.9	7.8	7.7	---	---
14	8.7	8.4	9.1	9.0	8.5	8.3	8.1	8.0	7.8	7.7	---	---
15	8.7	8.4	9.1	9.0	8.5	8.3	8.1	8.0	7.7	7.7	---	---
16	8.7	8.4	9.0	9.0	8.4	8.3	8.0	7.9	7.7	7.7	---	---
17	8.7	8.5	9.0	9.0	8.5	8.3	8.0	7.9	7.8	7.7	8.4	8.3
18	8.8	8.5	9.1	8.8	8.5	8.3	8.0	7.9	7.9	7.7	8.4	7.9
19	8.8	8.5	9.0	8.8	8.5	8.3	8.0	7.9	7.9	7.8	8.2	7.9
20	8.7	8.5	9.0	8.8	8.4	8.3	8.0	7.9	7.9	7.8	8.3	8.2
21	8.7	8.5	8.9	8.7	8.5	8.3	8.1	7.9	8.0	7.8	8.4	8.3
22	8.8	8.5	8.9	8.7	8.5	8.3	8.1	8.0	8.1	7.9	8.4	8.2
23	8.7	8.6	8.9	8.7	8.6	8.4	8.1	8.0	8.0	7.9	8.5	8.4
24	8.7	8.4	9.0	8.8	8.5	8.4	8.1	7.9	---	---	8.5	8.4
25	8.5	8.4	8.9	8.8	8.4	8.4	8.0	7.9	---	---	8.6	8.5
26	8.5	8.4	8.8	8.7	8.5	8.3	8.0	7.8	---	---	8.6	8.5
27	8.5	8.4	8.7	8.5	8.5	8.3	7.9	7.8	---	---	8.6	8.5
28	8.6	8.4	8.6	8.5	8.5	8.4	7.9	7.8	---	---	8.6	8.5
29	8.7	8.5	8.7	8.5	8.4	8.3	7.8	7.8	---	---	8.6	8.5
30	8.6	8.5	8.6	8.5	8.4	8.3	7.9	7.8	---	---	8.7	8.5
31	8.5	8.4	---	---	8.4	8.3	7.9	7.8	---	---	8.7	8.6
MONTH	8.8	8.2	9.1	8.4	8.7	8.1	8.4	7.8	8.1	7.7	8.7	7.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.8	8.7	8.5	8.3	8.8	8.6	8.1	7.8	8.3	8.0	8.0	7.9
2	8.7	8.3	8.3	7.9	9.0	8.6	8.5	7.8	8.0	7.5	8.1	7.8
3	8.2	8.0	8.1	8.0	9.0	8.6	8.8	8.2	7.6	7.4	8.4	8.0
4	8.2	8.0	8.1	8.0	9.0	8.6	9.0	8.4	7.7	7.4	8.5	8.1
5	8.2	8.0	8.1	7.8	8.8	8.5	8.8	8.6	7.8	7.4	8.6	8.1
6	8.3	8.2	7.9	7.7	8.8	8.5	8.6	8.4	8.0	7.5	8.5	8.2
7	8.4	8.3	7.8	7.7	9.0	8.6	8.6	8.4	8.3	7.6	8.6	8.2
8	8.5	8.3	8.0	7.8	8.9	8.7	8.3	8.0	8.1	7.6	8.4	8.3
9	8.6	8.4	8.0	7.9	9.1	8.7	8.1	7.8	8.0	7.6	8.4	8.1
10	8.7	8.5	8.0	7.9	9.3	8.8	7.9	7.6	8.3	7.6	8.5	8.3
11	8.7	8.5	8.1	8.0	8.9	8.7	8.2	7.5	8.7	8.3	8.6	8.2
12	8.8	8.6	8.0	7.9	8.8	8.6	8.6	7.6	8.5	7.9	8.5	8.3
13	8.9	8.6	8.0	7.9	8.9	8.5	8.8	8.3	7.9	7.7	8.3	8.1
14	8.8	8.7	8.0	7.9	8.8	8.6	8.7	8.4	7.7	7.6	8.2	8.0
15	8.8	8.7	8.0	7.9	9.0	8.5	8.6	8.3	7.8	7.6	8.1	7.9
16	8.8	8.7	8.0	7.8	9.0	8.8	8.5	8.0	7.9	7.8	8.1	8.0
17	8.8	8.6	8.1	7.8	8.9	8.5	8.3	8.0	7.9	7.5	8.4	8.1
18	8.8	8.6	8.2	7.9	8.8	8.6	8.5	7.9	7.8	7.7	8.7	8.4
19	8.7	8.6	8.3	7.9	8.9	8.6	8.2	7.6	7.8	7.6	8.6	8.2
20	9.0	8.5	8.5	8.0	9.0	8.6	7.9	7.5	7.9	7.8	8.2	8.0
21	8.9	8.6	8.5	8.1	9.0	8.5	7.7	7.2	8.1	7.9	8.1	8.0
22	8.7	8.5	8.6	8.2	8.8	8.5	7.9	7.3	8.1	7.9	8.1	7.9
23	8.6	8.4	8.6	8.4	8.8	8.4	8.2	7.7	8.3	8.0	8.1	8.0
24	8.5	8.3	8.6	8.2	8.9	8.6	8.1	7.8	8.2	8.0	8.1	8.0
25	8.3	8.2	8.5	8.2	8.8	8.3	8.4	8.1	8.2	7.9	8.2	8.0
26	8.4	8.3	8.8	8.3	8.2	7.4	8.2	7.9	8.2	8.0	8.2	8.0
27	8.5	8.3	8.8	8.5	7.5	7.4	8.0	7.7	8.2	8.0	8.2	8.0
28	8.5	8.4	8.7	8.4	7.7	7.4	8.1	7.7	8.2	8.0	8.3	8.0
29	8.4	8.4	8.6	8.3	7.8	7.5	8.0	7.9	8.2	8.1	8.4	8.2
30	8.5	8.3	8.5	8.1	7.9	7.7	8.1	7.8	8.3	8.1	8.6	8.3
31	---	---	9.0	8.2	---	---	8.4	7.8	8.3	8.0	---	---
MONTH	9.0	8.0	9.0	7.7	9.3	7.4	9.0	7.2	8.7	7.4	8.7	7.8
YEAR	9.3	7.2										

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.0	8.0	6.0	2.0	0.5	0.5	0.0	0.5	0.0	---	---
2	18.5	16.0	8.0	5.5	1.5	0.5	0.5	0.0	0.5	0.0	---	---
3	19.5	16.5	8.5	6.5	1.0	0.0	0.0	0.0	0.5	0.5	---	---
4	19.5	17.0	7.0	6.0	1.5	0.5	0.5	0.0	1.0	0.5	---	---
5	20.5	17.5	6.5	5.5	1.5	0.5	0.5	0.0	0.5	0.0	---	---
6	19.5	17.0	6.5	4.5	1.0	0.5	0.0	0.0	0.5	0.0	---	---
7	17.0	14.5	6.5	5.0	1.0	0.5	0.0	0.0	0.5	0.0	---	---
8	15.0	14.0	5.5	4.0	1.0	0.0	0.5	0.0	0.5	0.0	---	---
9	14.5	13.0	6.0	4.0	1.0	0.0	0.0	0.0	0.5	0.0	---	---
10	14.5	12.0	6.5	5.5	1.5	0.5	0.0	0.0	0.5	0.0	---	---
11	14.0	11.5	6.0	5.0	2.0	1.5	0.0	0.0	0.5	0.0	---	---
12	15.5	12.0	5.5	4.0	3.0	2.0	0.0	0.0	0.0	0.0	---	---
13	17.0	14.0	5.0	3.5	2.5	1.5	0.0	0.0	0.0	0.0	---	---
14	16.0	14.0	4.0	3.0	1.5	0.5	0.0	0.0	0.0	0.0	---	---
15	16.5	13.5	5.0	3.5	2.0	0.5	0.0	0.0	0.0	0.0	---	---
16	15.0	13.0	4.5	3.0	1.5	1.0	0.0	0.0	0.0	0.0	---	---
17	14.0	12.0	4.5	2.5	2.5	1.0	0.0	0.0	0.0	0.0	10.5	10.0
18	12.5	10.0	5.0	3.5	2.0	1.0	0.0	0.0	0.0	0.0	10.0	8.0
19	11.5	10.0	5.5	4.5	3.0	1.0	0.0	0.0	0.0	0.0	8.0	7.0
20	11.0	10.0	5.5	4.0	3.5	2.0	0.0	0.0	0.0	0.0	7.0	6.0
21	10.5	9.0	5.0	4.0	2.0	0.5	1.0	0.0	0.0	0.0	7.5	5.0
22	9.5	8.0	4.0	3.0	0.5	0.0	1.0	0.5	0.5	0.0	8.0	6.0
23	8.5	7.5	3.5	2.5	1.0	0.0	1.0	0.0	0.5	0.0	7.5	5.5
24	9.5	8.0	3.0	2.0	0.5	0.0	1.0	0.0	---	---	8.0	5.5
25	10.0	9.0	4.5	1.5	0.5	0.0	0.5	0.0	2.5	1.5	8.5	5.5
26	9.5	8.5	6.5	4.5	0.5	0.0	0.5	0.0	2.0	2.0	9.5	6.0
27	8.0	7.0	8.0	6.5	0.5	0.0	0.5	0.0	---	---	9.5	8.0
28	7.5	5.5	7.0	4.5	1.0	0.5	0.5	0.0	---	---	11.5	9.5
29	7.0	5.0	4.5	2.0	0.5	0.0	0.5	0.0	---	---	14.0	11.0
30	6.5	6.0	2.0	0.5	0.5	0.0	0.5	0.5	---	---	16.5	13.5
31	7.5	6.5	---	---	0.5	0.0	0.5	0.5	---	---	15.5	13.0
MONTH	20.5	5.0	8.5	0.5	3.5	0.0	1.0	0.0	2.5	0.0	16.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	12.0	17.0	14.5	27.5	25.0	26.0	23.0	28.5	25.5	30.0	27.0
2	14.0	13.5	17.5	15.5	25.5	23.0	26.5	22.5	28.0	24.5	30.0	27.5
3	13.5	12.0	18.0	16.5	25.0	22.0	27.0	23.0	28.0	24.5	29.5	27.0
4	12.0	11.5	19.0	17.5	25.5	22.0	28.5	24.0	29.0	26.0	28.5	26.0
5	11.5	8.5	19.5	17.0	24.5	23.5	30.5	27.0	30.0	27.0	28.0	26.0
6	8.5	6.5	20.0	19.0	25.5	23.0	32.0	28.0	30.5	27.5	27.0	25.5
7	8.5	5.5	19.5	18.0	23.0	21.0	32.5	29.5	29.5	27.5	28.0	25.0
8	10.0	7.5	19.0	17.0	21.5	19.5	33.0	29.0	28.0	24.5	28.0	25.0
9	10.5	7.5	18.0	16.0	21.5	18.5	30.5	29.0	27.0	24.0	28.0	25.0
10	13.0	8.5	17.5	15.0	22.0	18.5	29.0	24.5	27.5	25.5	27.5	25.0
11	15.0	10.0	18.0	14.5	22.0	20.0	26.0	24.0	28.0	25.5	25.5	22.5
12	17.5	13.5	18.5	15.5	24.5	20.5	27.5	24.0	26.0	24.0	23.5	21.0
13	19.0	15.5	20.5	16.5	25.0	22.0	29.5	25.5	25.0	23.5	23.5	21.0
14	20.0	16.5	21.5	18.5	24.5	23.5	31.5	27.5	27.5	24.5	23.0	21.5
15	20.5	18.0	23.5	19.5	27.0	23.0	31.5	29.0	28.5	25.5	23.5	21.0
16	21.0	18.0	23.5	20.5	27.0	23.5	32.5	29.0	28.5	26.0	23.5	22.5
17	20.5	18.5	24.5	20.5	28.0	24.5	32.5	29.0	28.0	25.0	24.5	22.0
18	21.5	18.5	25.5	21.5	27.5	26.0	33.0	29.0	26.5	24.5	25.5	22.5
19	20.5	19.5	27.0	22.5	26.5	24.5	32.5	29.5	26.0	23.0	25.0	24.0
20	21.5	18.5	27.5	23.5	27.5	25.0	33.0	30.0	25.5	22.5	24.0	22.0
21	21.0	19.5	27.5	24.0	27.0	24.0	31.0	29.0	25.0	23.0	21.5	20.0
22	20.5	19.5	26.5	24.0	25.5	22.5	30.5	28.0	26.0	23.0	22.0	18.5
23	19.5	18.5	26.5	23.5	24.0	21.0	30.0	26.0	26.0	23.5	23.0	20.5
24	18.5	16.5	26.5	23.5	24.5	23.0	29.0	26.0	25.5	23.5	22.5	21.5
25	16.5	13.5	26.5	24.0	25.0	23.5	29.0	27.0	25.0	21.5	23.0	21.0
26	15.5	12.0	27.0	23.5	25.5	22.0	28.0	24.5	25.5	22.5	24.0	21.5
27	16.5	12.5	27.5	23.5	25.5	23.0	27.5	24.0	27.0	24.0	23.0	21.0
28	15.5	10.0	27.5	24.0	26.5	25.0	27.5	22.5	28.5	26.0	21.5	19.0
29	15.0	12.0	26.5	24.5	26.5	23.0	26.5	25.0	29.0	26.5	21.5	18.5
30	16.0	12.0	27.0	23.0	26.5	23.5	28.0	24.0	28.5	26.5	21.0	18.0
31	---	---	28.5	25.0	---	---	27.5	25.0	29.5	26.5	---	---
MONTH	21.5	5.5	28.5	14.5	28.0	18.5	33.0	22.5	30.5	21.5	30.0	18.0
YEAR	33.0	0.0										

03245500 LITTLE MIAMI RIVER AT MILFORD, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.1	7.6	11.7	9.8	15.0	13.0	14.4	12.4	9.7	8.9	---	---
2	9.6	7.7	12.1	10.1	15.0	13.1	14.0	12.5	9.9	8.9	---	---
3	9.6	7.5	12.2	9.9	15.0	13.5	12.6	11.8	9.9	8.9	---	---
4	10.3	7.6	11.9	9.9	15.0	13.5	11.9	10.5	9.9	9.0	---	---
5	10.4	7.8	12.3	10.2	15.0	13.3	12.4	10.2	10.8	9.0	---	---
6	8.2	7.3	13.2	10.5	14.1	11.9	11.9	11.0	11.2	9.7	---	---
7	8.0	7.4	13.2	10.5	12.4	11.4	12.2	10.8	10.3	10.1	---	---
8	9.4	7.6	13.8	10.8	[illegible]	11.3	12.1	10.8	10.4	9.1	---	---
9	9.9	8.2	13.9	11.3	13.5	11.8	11.2	10.4	11.0	8.8	---	---
10	10.3	8.5	13.8	10.9	13.2	11.6	11.3	10.1	11.9	9.8	---	---
11	10.1	8.4	13.3	10.8	12.3	11.2	11.6	10.1	11.0	10.4	---	---
12	10.1	7.8	13.7	11.1	12.9	10.8	11.0	9.9	10.9	10.3	---	---
13	10.7	7.5	13.7	11.3	13.5	11.0	11.1	9.9	11.2	10.5	---	---
14	11.3	7.0	13.8	11.5	13.7	11.5	10.0	9.2	11.5	10.7	---	---
15	11.6	8.0	13.9	11.4	13.5	11.6	9.7	8.7	11.2	10.7	---	---
16	11.6	7.8	13.9	11.6	12.6	11.6	9.6	8.9	11.9	10.8	---	---
17	11.4	8.1	13.2	11.4	13.5	11.2	9.8	8.8	12.0	11.3	---	---
18	12.8	8.4	13.2	11.1	13.7	11.6	9.5	8.9	11.9	10.9	---	---
19	12.4	8.8	13.0	11.0	13.4	11.4	9.5	8.5	11.8	11.1	---	---
20	9.7	8.6	12.8	11.0	11.9	10.9	9.1	8.5	12.0	10.8	---	---
21	9.9	8.4	12.3	10.5	13.4	10.7	9.1	8.3	12.1	11.3	---	---
22	12.3	7.8	12.5	10.7	14.1	11.8	9.1	8.3	11.6	11.1	---	---
23	10.8	9.7	13.5	11.1	14.2	11.9	9.3	8.5	11.5	10.3	11.7	10.1
24	9.9	9.0	13.6	11.2	14.0	12.3	8.9	8.4	---	---	11.7	10.1
25	9.4	8.7	13.8	11.5	12.4	11.3	8.6	8.1	11.4	11.1	11.6	9.7
26	10.2	9.0	12.0	10.6	13.0	11.2	9.6	7.9	11.4	11.0	11.2	9.2
27	11.1	9.1	11.6	9.4	13.2	11.2	9.8	8.9	---	---	10.2	9.1
28	12.1	10.1	10.6	9.0	12.2	10.7	9.8	9.2	---	---	9.2	8.3
29	12.5	10.3	13.2	9.8	12.9	10.8	9.9	9.2	---	---	8.6	7.3
30	11.0	10.2	14.2	11.4	13.5	11.2	9.9	9.1	---	---	7.7	6.5
31	10.4	9.7	---	---	14.0	11.9	9.9	9.0	---	---	8.0	7.1
MONTH	12.8	7.0	14.2	9.0	15.0	10.7	14.4	7.9	12.1	8.8	11.7	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.7	7.4	9.9	8.1	15.0	6.7	7.7	6.1	11.5	6.5	---	---
2	7.9	7.5	8.0	7.0	15.0	6.9	10.1	6.1	7.3	5.6	---	---
3	8.5	7.8	7.0	6.9	15.0	7.6	13.4	7.1	---	---	10.6	5.4
4	8.9	8.3	8.2	6.7	15.0	8.9	14.7	7.4	---	---	13.5	5.6
5	10.6	9.0	8.0	7.5	15.0	9.0	11.8	7.4	---	---	11.7	5.3
6	11.9	10.7	7.4	7.2	14.9	6.6	9.7	5.3	8.9	4.9	12.9	5.9
7	12.7	9.9	7.7	7.3	15.0	7.1	9.1	4.7	10.8	5.2	11.3	6.2
8	11.1	9.6	8.0	7.1	15.0	8.6	7.5	4.2	7.4	5.8	11.5	5.2
9	11.3	9.4	8.5	7.8	15.0	7.4	6.3	4.0	8.4	5.4	11.0	5.6
10	10.6	8.1	8.8	8.1	15.0	8.4	5.5	4.2	9.2	6.0	11.0	5.5
11	---	---	8.9	8.1	15.0	9.0	8.0	4.3	12.0	6.7	11.5	5.7
12	---	---	9.3	7.6	15.0	8.5	12.9	4.9	8.1	6.5	10.3	6.3
13	---	---	9.7	8.1	15.0	6.3	15.0	6.8	6.5	4.9	7.8	5.8
14	---	---	9.9	7.8	13.3	6.3	13.8	6.2	6.2	5.4	8.0	5.5
15	---	---	10.3	7.6	15.0	6.1	10.9	5.2	5.5	4.8	7.5	5.7
16	---	---	10.8	7.6	15.0	7.6	12.7	5.0	7.9	4.7	7.4	5.9
17	---	---	11.3	7.2	14.6	6.4	12.8	5.2	---	---	8.1	6.0
18	---	---	11.7	7.1	12.6	5.7	12.8	4.7	---	---	13.0	6.7
19	---	---	13.2	6.4	10.8	4.5	9.1	4.7	---	---	9.5	6.3
20	---	---	15.0	6.6	11.3	4.2	8.2	4.1	7.9	7.0	8.0	5.7
21	---	---	15.0	7.4	12.5	4.6	5.0	3.8	8.2	7.2	7.6	6.2
22	9.1	7.1	15.0	7.1	9.1	4.5	8.0	3.9	8.9	7.3	8.4	6.5
23	8.6	6.4	14.4	7.0	12.6	5.3	10.2	4.6	9.4	7.1	7.9	5.3
24	8.3	6.8	14.7	6.3	12.8	6.1	8.7	4.6	9.0	7.0	7.4	5.3
25	8.1	6.9	12.8	6.2	10.2	5.6	10.2	4.3	8.7	6.8	8.0	6.1
26	9.5	7.7	15.0	6.1	---	---	10.3	5.6	9.0	6.1	8.8	6.0
27	9.9	8.1	15.0	6.6	---	---	9.3	5.4	11.2	6.2	8.0	6.0
28	8.5	7.5	15.0	6.4	---	---	10.3	4.3	9.8	6.5	8.1	5.8
29	9.6	7.6	14.0	5.0	6.6	5.8	8.1	6.1	9.4	6.3	9.5	6.5
30	9.9	8.2	13.6	4.3	7.2	5.8	9.1	5.5	10.8	6.3	11.5	6.6
31	---	---	15.0	4.3	---	---	11.9	5.5	---	---	---	---
MONTH	12.7	6.4	15.0	4.3	15.0	4.2	15.0	3.8	12.0	4.7	13.5	5.2
YEAR	15.0	3.8										

03246200 EAST FORK LITTLE MIAMI RIVER NEAR MARATHON, OH

LOCATION.--Lat 39°06'52", long 84°01'29", Clermont County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on Blue Sky Park Road, 500 ft (152 m) upstream from Fivemile Creek, 1.0 mi (1.6 km) downstream from Sixmile Creek, and 2.3 mi (3.7 km) southwest of Marathon.

DRAINAGE AREA.--195 mi² (505 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 842.32 ft (256.739 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--9 years, 233 ft³/s (6.60 m³/s), 16.23 in/yr (412 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) Apr. 2, 1970, Feb. 24, 1975; maximum gage height, 18.57 ft (5.660 m) Apr. 2, 1970, in gage well, about 19.8 ft (6.04 m) outside; minimum discharge, 0.50 ft³/s (1.42 m³/s) Oct. 15, 16, 17, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 4	1200	3900	110	12.20	3.719	Apr. 3	0300	*5350	152	*13.76	4.194

Minimum discharge, 3.2 ft³/s (0.091 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	306	30	6.0	3.5	154	50	52	30	405	5.0	10
2	9.8	134	32	5.4	3.5	146	1050	150	18	252	4.6	11
3	8.5	83	30	5.0	3.5	255	3650	191	15	90	4.3	13
4	6.5	57	29	4.6	3.5	3070	614	114	14	37	4.2	9.0
5	5.7	43	28	4.3	3.5	980	1620	522	12	22	4.0	6.7
6	5.1	36	27	4.0	3.5	337	640	821	12	16	4.0	5.7
7	4.3	30	26	3.8	3.5	202	469	1900	11	12	4.0	5.3
8	4.0	27	69	3.7	4.0	142	261	742	10	9.8	5.0	5.1
9	3.6	25	79	3.6	6.0	108	167	258	10	8.2	16	5.0
10	3.2	23	47	3.5	7.0	91	128	146	11	104	24	4.9
11	3.8	22	35	3.5	9.0	77	106	99	13	335	25	4.6
12	12	21	30	3.5	60	132	87	76	17	252	202	4.5
13	12	20	28	3.5	1100	1350	71	56	16	410	361	4.5
14	7.6	19	26	3.5	950	415	60	46	16	138	167	4.5
15	5.7	18	24	3.5	750	215	53	38	15	51	95	4.5
16	6.7	16	23	3.5	470	148	47	33	14	26	36	45
17	6.2	16	22	3.5	300	103	40	29	13	19	23	123
18	5.5	16	21	3.5	220	2110	36	27	13	14	23	70
19	5.1	15	20	3.5	170	964	35	24	13	11	20	78
20	5.7	15	19	3.5	150	365	32	22	13	9.0	15	62
21	8.9	15	18	3.5	130	304	30	20	12	7.6	11	33
22	14	15	17	3.4	270	348	29	18	12	6.4	10	27
23	23	15	15	3.4	1690	313	30	16	11	6.2	8.7	17
24	116	15	14	3.4	2290	176	44	16	9.2	5.6	263	12
25	402	15	13	3.4	1000	125	74	16	81	6.9	97	9.9
26	215	15	12	3.5	412	100	60	16	87	13	67	8.3
27	104	18	11	3.5	328	85	46	15	39	12	48	7.6
28	57	20	10	3.5	245	83	37	14	179	7.1	44	6.2
29	39	23	9.0	3.5	---	98	64	20	271	5.4	38	5.5
30	33	25	8.0	3.5	---	87	84	18	110	5.4	20	5.3
31	274	---	7.0	3.5	---	64	---	76	---	5.2	13	---
TOTAL	1418.9	1118	779.0	117.0	10585.5	13147	9714	5591	1097.2	2301.8	1661.8	608.1
MEAN	45.8	37.3	25.1	3.77	378	424	324	180	36.6	74.3	53.6	20.3
MAX	402	306	79	6.0	2290	3070	3650	1900	271	410	361	123
MIN	3.2	15	7.0	3.4	3.5	64	29	14	9.2	5.2	4.0	4.5
CFSM	.24	.19	.13	.02	1.94	2.17	1.66	.92	.19	.38	.28	.10
IN.	.27	.21	.15	.02	2.02	2.51	1.85	1.07	.21	.44	.32	.12

CAL YR 1976 TOTAL 53830.0 MEAN 147 MAX 5540 MIN 2.5 CFSM .75 IN 10.27
WTR YR 1977 TOTAL 48139.3 MEAN 132 MAX 3650 MIN 3.2 CFSM .68 IN 9.18

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 09...	1500	102	720	8.0	10.0	10.8	96	4.2	240	68	65	19
JUN 21...	1430	11	540	8.0	25.0	7.8	94	2.1	260	56	63	24

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 09...	11	3.9	210	0	172	3.4	56	27	.1	7.5	293	3.6
JUN 21...	10	3.7	244	0	200	3.9	44	23	.1	4.2	292	.59

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 09...	.03	.07	.12	1	10	5	40	6	30	.0	30	9.0
JUN 21...	.02	.09	.10	4	10	12	70	3	50	.5	30	6.0

03247050 EAST FORK LITTLE MIAMI RIVER NEAR BATAVIA, OH

LOCATION.--Lat 39°03'36", long 84°10'32", Clermont County, Hydrologic Unit 05090202, on right bank on Elk Lick Road, 230 ft (70 m) upstream from unnamed right bank tributary, 1,400 ft (427 m) upstream from Lucy Run, and 1.3 mi (2.1 km) south of Batavia.

DRAINAGE AREA.--352 mi² (912 km²), includes that of unnamed tributary.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 571.68 ft (174.248 m) above mean sea level. Prior to July 17, 1968, nonrecording gage 1,100 ft (335 m) downstream at same datum.

REMARKS.--Records good except for the winter period, which are fair. Flow partially regulated by unfinished East Fork Lake Dam, since 1974.

AVERAGE DISCHARGE.--12 years, 414 ft³/s (11.72 m³/s), 15.97 in/yr (406 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft³/s (813 m³/s) Apr. 2, 1970, gage height, 20.31 ft (6.190 m); minimum daily, 0.14 ft³/s (0.004 m³/s) Sept. 23, 27, 1967. Maximum discharge since start of construction of East Fork Dam 31,000 ft³/s (878 m³/s) Aug. 30, 1974, gage height, 20.80 ft (6.400 m) in gage well, 21.8 ft (6.645 m) from floodmarks, result of failure of cofferdam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 21.46 ft (6.541 m) at site 1,100 ft (335 m) downstream from information by local resident, discharge, about 32,000 ft³/s (906 m³/s), from flood study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,170 ft³/s (118 m³/s) Apr. 3, gage height, 11.67 ft (3.557 m); minimum daily, 3.4 ft³/s (0.10 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	573	31	8.8	4.5	289	84	88	34	591	15	37
2	42	294	38	7.8	4.5	255	600	131	43	474	14	29
3	32	161	37	6.8	5.6	369	3760	167	27	220	11	57
4	24	115	30	6.2	7.0	3220	3490	151	19	106	7.5	60
5	19	90	34	5.8	6.2	3580	3020	154	15	61	5.5	34
6	18	75	44	5.6	5.4	1900	2290	704	13	40	3.6	25
7	16	64	60	5.5	7.2	416	1160	1550	11	30	3.4	22
8	14	53	96	5.5	10	264	505	1710	9.6	24	4.2	19
9	14	43	78	5.5	13	204	260	416	21	20	4.5	16
10	14	43	94	5.5	15	161	174	178	22	26	4.9	14
11	23	32	70	5.5	17	139	139	110	16	139	43	11
12	21	30	58	5.5	50	241	118	90	13	573	326	9.9
13	15	27	46	5.5	1000	1880	97	77	14	772	659	8.1
14	11	25	40	5.5	900	1310	88	66	24	329	413	8.4
15	25	25	36	5.5	700	416	79	56	21	143	256	13
16	23	24	34	5.4	400	241	71	48	16	75	121	454
17	17	23	32	5.4	300	171	64	44	13	47	72	363
18	13	22	29	5.4	200	1320	59	40	12	34	43	166
19	11	21	27	5.4	170	2610	54	36	13	27	36	333
20	15	21	25	5.4	150	1070	50	38	14	32	29	322
21	25	19	23	5.4	140	497	47	31	12	20	27	123
22	31	18	21	5.3	160	482	48	27	12	15	38	74
23	28	18	19	5.2	1400	538	53	26	18	11	41	52
24	224	18	18	5.1	2300	279	62	23	18	9.8	879	43
25	466	18	17	5.0	2200	185	106	22	69	15	410	34
26	474	20	15	4.9	992	145	103	23	131	23	239	28
27	220	24	14	4.8	591	123	81	20	108	16	1440	23
28	128	30	13	4.7	451	113	71	18	178	12	193	20
29	90	31	12	4.6	---	113	118	17	345	21	82	17
30	75	29	11	4.5	---	115	99	18	274	37	68	16
31	289	---	10	4.5	---	97	---	18	---	21	56	---
TOTAL	2445	1986	1112	171.5	12199.4	22743	16950	6097	1535.6	3963.8	5544.6	2431.4
MEAN	78.9	66.2	35.9	5.53	436	734	565	197	51.2	128	179	81.0
MAX	474	573	96	8.8	2300	3580	3760	1710	345	772	1440	454
MIN	11	18	10	4.5	4.5	97	47	17	9.6	9.8	3.4	8.1
CFSM	.22	.19	.10	.02	1.24	2.09	1.61	.56	.15	.36	.51	.23
IN.	.26	.21	.12	.02	1.29	2.40	1.79	.64	.16	.42	.59	.26

CAL YR 1976 TOTAL 102962.2 MEAN 281 MAX 5120 MIN 3.3 CFSM .80 IN 10.88
WTR YR 1977 TOTAL 77179.3 MEAN 211 MAX 3760 MIN 3.4 CFSM .60 IN 8.16

03247050 EAST FORK LITTLE MIAMI RIVER NEAR BATAVIA, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 09...	1100	214	460	8.0	8.0	10.6	89	3.2	220	80	63	16
JUN 22...	1040	11	550	8.0	23.0	6.8	80	2.8	250	47	62	24

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 09...	11	4.5	174	0	143	2.8	50	26	.1	7.0	264	2.9
JUN 22...	15	3.1	252	0	207	4.0	46	27	.1	.9	302	.01

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 09...	.03	.08	.11	2	<10	5	60	6	70	.0	50	9.0
JUN 22...	.00	.08	.08	4	10	7	80	0	10	.2	30	5.9

03247500 EAST FORK LITTLE MIAMI RIVER AT PERINTOWN, OH

LOCATION.--Lat 39°08'13", long 84°14'17", Clermont County, Hydrologic Unit 05090202, on left bank at downstream side of highway bridge at Perintown, 0.2 mi (0.3 km) downstream from Sugarcamp Run, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--476 mi² (1,233 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1915 to September 1917, October 1917 to May 1920 (gage heights only), January 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 507.03 ft (154.543 m) above mean sea level. Prior to Feb. 6, 1940, nonrecording gage, at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Stonelick Creek 14 mi (23 km) upstream. Surface area at spillway level, 171 acres (69 hm²). Flow partially regulated by unfinished East Fork Lake dam, since 1974.

AVERAGE DISCHARGE.--54 years (1915-17, 1925-77), 540 ft³/s (15.29 m³/s), 15.41 in/yr (391 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft³/s (1,200 m³/s) Mar. 10, 1964, gage height, 23.84 ft (7.266 m); minimum daily, 0.4 ft³/s (0.011 m³/s) July 24, 1930, Sept. 11, 12, 23, 1939; minimum gage height, -0.18 ft (-0.055 m) Oct. 3-7, 1917. Maximum discharge since start of construction of East Fork Dam 23,200 ft³/s (657 m³/s) Aug. 30, 1974, gage height, 19.52 ft (5.950 m), result of failure of cofferdam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,510 ft³/s (269 m³/s) Apr. 2, gage height, 12.73 ft (3.880 m); minimum daily, 14 ft³/s (0.40 m³/s) Jan. 21-25, Jan. 28 to Feb. 3, Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	461	50	19	14	340	118	164	33	916	32	59
2	33	317	60	18	14	305	2270	302	57	666	25	47
3	35	178	56	17	14	491	4150	293	45	320	24	44
4	28	123	52	17	15	4240	3440	286	35	169	22	91
5	24	94	48	16	16	3320	3300	862	29	94	19	54
6	24	77	46	16	15	2010	2580	1180	26	65	17	41
7	23	66	75	16	14	499	1540	2210	23	49	16	33
8	21	56	113	16	16	320	714	2060	22	41	20	31
9	22	49	96	16	18	246	406	773	31	36	37	28
10	22	44	115	16	20	202	300	326	37	233	25	25
11	21	40	106	15	24	173	246	215	31	221	23	23
12	25	36	90	15	200	343	209	165	25	610	308	22
13	21	34	85	15	1200	1920	178	137	22	760	834	20
14	19	32	69	15	1190	1480	153	117	25	432	507	21
15	17	32	60	15	911	487	140	99	31	218	363	21
16	23	31	52	15	479	311	126	87	27	118	180	314
17	22	29	46	15	334	228	115	78	21	71	113	468
18	19	28	44	15	220	2060	108	71	20	53	73	214
19	17	28	42	15	190	2600	98	64	19	42	54	455
20	18	27	41	15	180	1310	92	65	19	41	42	445
21	34	27	40	14	170	583	86	58	19	37	46	191
22	30	25	38	14	220	695	88	50	20	29	46	110
23	29	58	36	14	1180	637	98	47	24	25	57	71
24	165	70	34	14	2530	394	219	43	25	22	1410	59
25	394	70	32	14	2260	272	309	41	197	32	596	49
26	428	70	30	15	1060	211	239	40	458	44	211	41
27	233	53	28	15	583	178	172	39	171	32	1300	36
28	138	52	26	14	458	171	144	35	209	25	340	32
29	93	52	24	14	---	167	247	32	499	25	128	29
30	82	48	22	14	---	163	202	32	372	53	85	26
31	283	---	20	14	---	144	---	31	---	45	82	---
TOTAL	2380	2307	1676	473	13545	26500	22087	10002	2572	5524	7035	3100
MEAN	76.8	76.9	54.1	15.3	484	855	736	323	85.7	178	227	103
MAX	428	461	115	19	2530	4240	4150	2210	499	916	1410	468
MIN	17	25	20	14	14	144	86	31	19	22	16	20
CFSM	.16	.16	.11	.03	1.02	1.80	1.55	.68	.18	.37	.48	.22
IN.	.19	.18	.13	.04	1.06	2.07	1.73	.78	.20	.43	.55	.24

CAL YR 1976 TOTAL 112249 MEAN 307 MAX 7230 MIN 11 CFSM .65 IN 8.77
WTR YR 1977 TOTAL 97201 MEAN 266 MAX 4240 MIN 14 CFSM .56 IN 7.60

03247500 EAST FORK LITTLE MIAMI RIVER AT PERINTOWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
09...	0930	259	400	8.0	7.0	10.8	88	7.0	210	78	59	15
JUN												
22...	0830	17	660	7.8	23.0	6.1	72	3.7	270	51	73	21

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
09...	13	4.7	160	0	131	2.6	51	30	.1	6.9	259	2.6
JUN												
22...	27	4.1	266	0	218	6.7	50	39	.1	3.3	349	.45

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
09...	.03	.28	.32	2	10	8	40	13	40	.0	40	9.1
JUN												
22...	.06	.56	.75	3	20	5	20	0	20	.7	10	6.5

03255500 MILL CREEK AT READING, OH

LOCATION.--Lat 39°13'14", long 84°26'49", in sec. 32, R.1, T.4, Hamilton County, Hydrologic Unit 05090203, on right bank at upstream side of Koehler Street Bridge at Reading, 1.0 mi (1.6 km) upstream from West Fork Mill Creek, and 13.0 mi (20.9 km) upstream from mouth.

DRAINAGE AREA.--73.0 mi² (189 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to April 1939, June 1939 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 527.00 ft (160.630 m) above mean sea level, Ohio River datum. Prior to Oct. 1, 1951, water-stage recorder or nonrecording gage at same site at datum 4.00 ft (1.219 m) higher. Oct. 1, 1951, to Apr. 25, 1954, nonrecording gage at present site and datum.

REMARKS.--Records good except those for the winter period, which are fair. Some diversion and ground water pumpage from Mill Creek and Great Miami River basin by industrial plants of the greater Cincinnati area upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,780 ft³/s (164 m³/s) Mar. 6, 1945, gage height, 20.00 ft (6.096 m) present datum; no flow for many days in 1940-41, 1944, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) Mar. 4 (base 1,700 ft³/s), gage height, 9.75 ft (2.97 m); minimum daily discharge, 2.1 ft³/s (0.059 m³/s) Jan. 28 to Feb. 2, Feb. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	34	8.2	2.9	2.1	53	23	17	6.7	173	5.7	8.7
2	4.3	18	6.5	3.1	2.1	42	292	53	5.6	18	5.2	8.1
3	7.6	13	5.6	5.4	2.2	244	141	22	5.2	8.4	4.8	17
4	4.7	9.8	4.6	6.4	2.5	813	219	53	4.6	6.2	5.5	3.1
5	5.8	8.7	4.0	6.8	2.3	177	309	274	3.2	5.5	5.5	3.1
6	45	6.2	8.0	7.6	2.1	75	103	93	6.3	6.1	4.1	6.2
7	16	4.7	26	6.0	2.1	56	71	129	5.7	8.0	7.1	8.1
8	6.7	8.7	10	4.5	2.1	44	49	44	18	6.5	223	8.1
9	21	9.8	7.6	4.0	2.3	38	38	30	65	6.0	32	6.7
10	7.6	11	9.8	4.0	4.6	34	33	23	6.9	121	15	4.3
11	5.4	9.8	15	5.4	8.0	29	32	20	4.7	25	184	2.4
12	7.6	9.8	8.0	5.0	56	362	31	18	3.1	43	223	5.4
13	6.7	6.7	7.5	5.8	120	305	29	17	4.4	11	21	7.1
14	7.1	4.7	8.2	4.8	58	85	27	13	75	6.7	9.8	12
15	7.6	7.6	8.2	4.0	25	57	27	10	10	5.8	9.8	9.8
16	5.4	8.1	7.6	3.7	21	44	21	9.3	7.1	6.2	9.2	44
17	4.7	8.7	6.6	3.4	18	37	18	9.9	6.0	36	280	11
18	5.8	9.2	5.8	3.1	16	506	21	9.4	5.5	9.4	24	4.0
19	4.7	8.7	5.4	2.9	14	100	21	9.7	2.9	7.2	11	38
20	66	6.7	12	2.7	16	87	21	22	6.0	9.0	6.2	8.7
21	24	5.0	8.6	2.5	19	59	21	10	6.4	9.6	12	6.7
22	9.2	7.6	6.6	2.4	62	144	28	7.7	59	6.9	13	6.2
23	25	8.7	4.6	2.3	188	64	31	8.4	21	4.0	8.1	6.2
24	261	9.8	2.9	2.3	339	48	35	9.8	9.7	2.6	123	4.3
25	66	7.1	2.7	2.2	77	41	33	9.4	182	36	17	2.9
26	24	41	3.1	2.3	45	34	28	8.3	239	10	9.2	5.8
27	15	36	4.6	2.2	54	27	19	8.1	41	6.0	6.7	6.2
28	12	12	7.0	2.1	36	66	60	4.8	156	4.9	4.7	6.2
29	11	11	6.4	2.1	---	41	56	13	85	31	7.6	6.2
30	110	8.7	5.6	2.1	---	34	17	3.6	38	59	8.1	6.7
31	153	---	3.4	2.1	---	27	---	6.0	---	5.5	8.1	---
TOTAL	962.9	350.8	230.1	116.1	1196.4	3773	1854	965.4	1001.0	693.5	1303.4	273.2
MEAN	31.1	11.7	7.42	3.75	42.7	122	61.8	31.1	33.4	22.4	42.0	9.11
MAX	261	41	26	7.6	339	813	309	274	239	173	280	44
MIN	4.3	4.7	2.7	2.1	2.1	27	17	3.6	2.9	2.6	4.1	2.4

CAL YR 1976 TOTAL 15687.3 MEAN 42.9 MAX 1110 MIN 2.7
WTR YR 1977 TOTAL 12719.8 MEAN 34.8 MAX 813 MIN 2.1

03255500 MILL CREEK AT READING, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 10...	0900	32	850	8.0	9.5	8.8	76	4.5	340	100	98	24
JUN 27...	1315	29	645	7.9	25.5	6.5	78	3.5	240	79	66	18

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 10...	42	3.9	296	0	243	4.7	88	77	.2	8.8	488	1.7
JUN 27...	30	4.1	195	0	160	3.9	77	50	.2	9.0	351	1.8

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 10...	.07	1.0	.72	2	10	4	30	6	100	.0	20	10
JUN 27...	.10	.36	.38	3	20	22	10	46	70	.0	40	8.9

03256500 WEST FORK MILL CREEK LAKE NEAR GREENHILLS, OH

LOCATION.--Lat 39°15'34", long 84°29'41", in SE 1/4 sec.17, T.3, R.1, Hamilton County, Hydrologic Unit 05090203, in gate house of dam on West Fork Mill Creek, 1.2 mi (1.9 km) east of Greenhills.

DRAINAGE AREA.--29.9 mi² (77.4 km²).

PERIOD OF RECORD.--April 1953 to current year. Prior to October 1971, published as West Fork Mill Creek Reservoir near Greenhills, Ohio.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft (182.880 m) above mean sea level, adjustment of 1912 (levels by Corps of Engineers); gage readings have been reduced to elevations above mean sea level.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway; operation for flood control began Dec. 20, 1952; storage to maintain conservation pool began Apr. 19, 1953. Usable capacity 11,310 acre-ft (13.9 hm³) between elevations 655.0 ft (199.64 m), lowest outlet, and 702.0 ft (213.97 m), crest of spillway, of which 1,470 acre-ft (1.81 hm³) is in conservation pool. Dead storage below elevation 655.0 ft (199.64 m), 65 acre-ft (80,100 m³). Figures given herein represent usable contents. Reservoir is used for flood control and recreation. There are no gates on spillway and all regulation is done by gates in conduit through dam.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,680 acre-ft (11.9 hm³) Jan. 22, 1959, elevation, 698.95 ft (213.040 m); minimum, 729 acre-ft (899,000 m³) Feb. 26, 1964, elevation, 670.00 ft (204.216 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,670 acre-ft (3.29 hm³) Mar. 4, elevation, 680.42 ft (207.392 m); minimum, 1,460 acre-ft (1.80 hm³) Aug. 20, 21, elevation, 674.94 ft (205.722 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	675.20	1500	-
Oct. 31	676.17	1690	+190
Nov. 30	675.13	1490	-200
Dec. 31	675.12	1490	0
CAL YR 1976	-	-	-320
Jan. 31	674.98	1460	-30
Feb. 28	675.10	1490	+30
Mar. 31	675.08	1480	-10
Apr. 30	675.15	1490	+10
May 31	675.33	1530	+40
June 30	675.32	1530	0
July 31	675.32	1530	0
Aug. 31	675.13	1490	-40
Sept. 30	675.13	1490	0
WTR YR 1977	-	-	-10

03257500 WEST FORK MILL CREEK AT WOODLAWN, OH

LOCATION.--Lat 39°15'14", long 84°28'13", in NE 1/4 sec.10, R.1, T.3, Hamilton County, Hydrologic Unit 05090203, on left bank at upstream side of Riddle Road Bridge in Woodlawn, 0.5 mi (0.8 km) upstream from small left bank tributary, 1.9 mi (3.1 km) downstream from West Fork Mill Creek Dam, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--32.2 mi² (83.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1952 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 570.00 ft (173.736 m) above mean sea level, adjustment of 1912 (Corps of Engineers bench mark).

REMARKS.--Records good except those for winter period, and May 3 to September 30, which are fair. Flow regulated by West Fork Mill Creek Reservoir 1.9 mi (3.1 km) upstream beginning 1953 (see station 03256500).

AVERAGE DISCHARGE.--24 years (1953-77), 31.0 ft³/s (0.878 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s (56.6 m³/s) Apr. 4, 1956, gage height, 6.82 ft (2.079 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,550 ft³/s (43.9 m³/s) Aug. 12, gage height, 5.96 ft (1.817 m); minimum daily, 0.09 ft³/s (0.003 m³/s) June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.6	.96	.46	4.4	16	6.3	1.9	8.1	189	2.6	.55
2	3.2	4.9	.94	.46	3.9	24	66	17	1.3	6.6	2.6	.55
3	3.0	5.4	.92	.45	3.6	48	167	8.7	.98	1.3	2.2	.55
4	1.6	6.0	.86	.45	3.3	457	20	21	.98	1.1	.78	.48
5	.35	4.9	.88	.45	3.4	540	229	320	.98	.98	.55	.55
6	13	3.4	.92	.45	4.1	92	33	154	1.3	.88	.55	.55
7	25	3.4	5.6	.48	5.2	40	37	34	1.2	.79	.70	.55
8	6.6	2.8	7.4	.54	6.8	23	33	29	1.3	.79	116	.55
9	6.3	1.1	3.5	.66	9.0	14	18	14	77	.88	138	.55
10	8.7	.98	3.0	.80	12	8.5	6.9	12	33	24	2.8	.55
11	8.7	1.1	4.4	12	55	6.3	9.4	5.4	1.3	13	15	.55
12	8.7	1.1	5.2	2.3	185	33	12	4.4	1.2	47	525	.55
13	8.1	1.1	3.2	2.2	116	243	10	3.6	1.2	23	53	.62
14	3.0	1.1	2.9	2.5	26	106	8.4	3.2	3.0	.88	29	.62
15	.10	1.1	2.8	2.9	17	36	8.4	3.0	4.6	.79	.98	.62
16	.10	1.2	2.3	4.0	12	21	7.5	3.0	4.6	.98	.98	2.2
17	.10	1.1	1.1	6.4	1.1	13	2.0	2.0	3.6	41	500	4.1
18	.12	1.1	.90	4.2	2.4	307	3.2	2.6	.98	28	15	1.5
19	.15	1.1	.85	3.1	3.9	81	4.8	2.8	.79	4.1	1.5	76
20	12	1.1	2.3	2.6	8.1	37	4.6	18	.10	.79	.55	2.6
21	28	1.1	2.0	2.1	11	28	4.5	16	.09	.70	.55	1.1
22	14	1.1	1.5	1.6	16	29	21	3.9	5.2	.70	.55	.70
23	7.5	1.1	.95	1.5	57	35	25	3.0	83	.70	.48	.62
24	150	1.1	.84	1.9	245	30	5.9	2.4	7.5	.70	300	.62
25	24	1.1	.80	2.5	43	18	29	2.4	59	.79	.55	.70
26	24	9.1	.80	2.8	38	11	18	2.4	318	.79	.55	.88
27	6.6	24	.78	2.3	38	7.2	4.4	2.4	6.6	.70	.55	6.3
28	3.0	18	.78	2.2	23	24	4.8	1.8	36	.62	.55	1.3
29	2.0	9.4	.78	3.0	---	33	30	3.0	423	.88	.55	.70
30	5.7	3.6	.75	3.6	---	17	12	49	18	2.2	.55	.79
31	159	---	.60	4.2	---	6.0	---	45	---	2.6	.55	---
TOTAL	538.10	118.18	61.43	75.10	953.2	2384.0	841.1	790.9	1103.90	397.24	1713.14	108.50
MEAN	17.4	3.94	1.98	2.42	34.0	76.9	28.0	25.5	36.8	12.8	55.3	3.62
MAX	159	24	7.4	12	245	540	229	320	423	189	525	76
MIN	.10	.98	.60	.45	1.1	6.0	2.0	1.8	.09	.62	.48	.48

CAL YR 1976 TOTAL 7130.63 MEAN 19.5 MAX 398 MIN .10
WTR YR 1977 TOTAL 9084.79 MEAN 24.9 MAX 540 MIN .09

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03257500 WEST FORK MILL CREEK AT WOODLAWN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 10...	1230	10	550	8.0	8.5	10.8	92	4.1	160	58	50	9.2
JUN 27...	1130	3.2	430	7.7	22.5	6.7	76	3.4	150	41	44	10

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 10...	42	3.2	128	0	105	2.0	46	75	.2	5.5	294	1.5
JUN 27...	25	3.3	134	0	110	4.3	33	40	.2	2.0	224	.35

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 10...	.05	.22	.29	3	30	7	130	21	50	.0	40	12
JUN 27...	.01	.13	.17	3	<10	4	20	11	20	.2	50	9.2

03259000 MILL CREEK AT CARTHAGE, OH

LOCATION.--Lat 39°12'07", long 84°28'16", in SW 1/4 sec. 1, R.1, T.3, Hamilton County, Hydrologic Unit 05090203, on right bank 100 ft (30 m) downstream from Anthony Wayne Avenue Bridge in Carthage, 1.0 mi (1.6 km) downstream from West Fork Mill Creek, and 11.0 mi (17.7 km) upstream from mouth.

DRAINAGE AREA.--115 mi² (298 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1946 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 512.00 ft (156.058 m) above mean sea level, Ohio River datum. Prior to Oct. 1, 1954 at site 100 ft (30 m) upstream at same datum.

REMARKS.--Records good except those for the winter period, which are fair. Some inter-basin transfers of water between Mill Creek and Great Miami River basins by industrial and municipal operations. Flow regulated by West Fork Mill Creek Reservoir, 6.9 mi (11.1 km) upstream, beginning 1953 (see station 03256500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,900 ft³/s (252 m³/s) Jan. 21, 1959, gage height, 16.17 ft (4.929 m), from rating curve extended above 4,000 ft³/s (79.3 m³/s) on basis of slope-area measurement of peak flow; no flow many days in 1947-48.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,750 ft³/s (49.6 m³/s) Mar. 4, gage height, 6.03 ft (1.838 m); minimum daily, 2.4 ft³/s (0.068 m³/s) Jan. 23 result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	40	15	7.4	9.5	61	30	31	30	234	22	14
2	14	28	13	7.8	10	56	313	74	21	40	22	13
3	16	25	11	8.2	11	263	301	33	21	22	21	20
4	16	19	10	8.6	12	1180	242	89	20	20	20	11
5	13	18	9.4	8.8	9.8	511	467	491	19	19	20	10
6	60	15	13	8.6	8.0	147	173	245	22	21	21	11
7	67	13	25	9.4	8.8	101	141	180	21	22	23	13
8	27	15	20	9.8	10	70	104	94	37	21	264	13
9	31	15	17	8.8	9.0	59	69	54	114	20	114	12
10	27	15	15	14	11	48	39	47	45	140	30	12
11	22	14	18	20	60	36	40	36	22	51	199	11
12	25	15	21	22	220	390	43	33	21	81	380	11
13	24	12	16	10	110	488	41	32	21	46	69	12
14	16	10	15	11	81	207	36	29	89	22	51	17
15	14	12	14	12	36	115	35	26	29	20	25	15
16	11	13	15	13	28	73	30	28	25	26	26	53
17	9.4	13	13	14	17	51	25	27	24	65	462	25
18	9.8	14	11	9.0	17	774	25	26	22	46	43	14
19	11	14	10	7.0	17	210	27	29	21	29	22	84
20	67	12	17	5.2	21	162	28	43	22	22	13	19
21	86	10	15	4.2	23	117	27	35	22	25	15	14
22	33	12	12	3.2	60	201	60	24	88	21	18	13
23	26	14	9.5	2.4	209	127	63	25	79	18	13	13
24	400	14	8.5	4.0	517	96	68	25	34	18	210	12
25	146	13	8.2	8.0	121	67	66	25	150	50	27	11
26	66	39	8.2	10	79	48	58	24	357	26	15	11
27	31	56	9.0	12	87	34	26	24	56	20	12	12
28	20	31	12	13	53	109	85	22	196	19	11	12
29	18	25	11	11	---	84	98	38	235	37	12	12
30	130	17	9.6	8.0	---	58	37	34	53	73	14	12
31	320	---	9.0	10	---	33	---	46	---	22	13	---
TOTAL	1781.2	563	410.4	300.4	1855.1	5976	2797	1969	1916	1296	2207	512
MEAN	57.5	18.8	13.2	9.69	66.3	193	93.2	63.5	63.9	41.8	71.2	17.1
MAX	400	56	25	22	517	1180	467	491	357	234	462	84
MIN	9.4	10	8.2	2.4	8.0	33	25	22	19	18	11	10

CAL YR 1976 TOTAL 24325.7 MEAN 66.5 MAX 1360 MIN 8.0
WTR YR 1977 TOTAL 21583.1 MEAN 59.1 MAX 1180 MIN 2.4

03259000 MILL CREEK AT CARTHAGE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
10...	1015	48	760	8.0	9.5	9.6	83	5.1	270	77	81	17
JUN												
28...	1125	51	570	7.7	23.5	6.5	76	4.2	190	56	55	12

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
10...	45	3.8	238	0	195	3.8	72	80	.2	8.4	425	1.5
JUN												
28...	34	3.7	159	0	130	5.1	53	52	.3	5.9	294	.87

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
10...	.07	.75	.59	3	20	6	20	13	110	.0	40	8.7
JUN												
28...	.06	.14	.49	3	10	14	40	14	130	.1	90	12

03260700 BOKENGEHALAS CREEK NEAR DE GRAFF, OH

LOCATION.--Lat 40°20'50", long 83°53'28", in E. 1/2 sec. 3, R.14, T.2, Logan County, Hydrologic Unit 05080001, on right bank at downstream side of county road bridge, 2 mi (3 km) downstream from Bluejacket Creek, 2.8 mi (4.5 km) northeast of De Graff, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--36.3 mi² (94.0 km²).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962, published as Buckongahelas Creek near Degraff.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,008.76 ft (307.470 m) above mean sea level.

REMARKS.--Records good except those for the period Oct. 23 to Feb. 25, which are fair. Diurnal fluctuation caused by municipal plant operation in Bellefontaine, 9.8 mi (15.8 km) upstream; since storage capacity is small, daily flows are not affected appreciably. Water-quality data collected at this site 1965 to 1973.

COOPERATION.--Gage-height charts, tapes, and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--20 years, 32.2 ft³/s (0.912 m³/s), 12.05 in/yr (306 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft³/s (50.4 m³/s) Jan. 21, 1959, gage height, 6.83 ft (2.082 m); minimum daily, 2.2 ft³/s (0.062 m³/s) Sept. 29, 30, Oct. 7, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 426 ft³/s (12.1 m³/s) Apr. 2, (base 300ft³/s, 8.50 m³/s), gage height, 4.64 ft (1.414 m); minimum daily, 4.6 ft³/s (0.13 m³/s) Feb. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	6.9	5.6	5.1	4.8	25	20	15	7.9	10	5.6	5.4
2	5.2	6.6	5.6	5.1	4.7	20	191	17	7.9	7.7	5.5	5.4
3	4.9	5.8	5.5	5.1	4.7	19	187	16	8.8	7.2	5.5	5.3
4	5.0	5.8	5.4	5.0	4.7	72	90	57	7.6	6.9	5.4	5.0
5	5.5	5.7	5.4	5.0	4.7	61	70	47	7.3	6.8	5.6	4.9
6	6.3	5.7	5.4	5.0	4.6	34	50	31	7.3	6.9	5.5	5.3
7	6.4	5.6	5.4	5.0	4.6	26	39	27	7.6	7.1	9.6	5.3
8	5.9	5.6	5.3	5.0	4.6	21	32	21	12	9.4	6.3	5.3
9	6.8	5.6	5.3	5.0	4.6	19	27	17	74	7.0	6.0	5.2
10	6.1	5.7	5.2	5.0	4.6	17	25	16	19	6.6	7.4	5.1
11	5.4	6.0	5.2	5.0	10	15	23	14	16	6.6	6.8	4.9
12	5.7	5.9	5.2	5.0	30	22	21	13	13	6.9	8.7	5.1
13	5.7	5.5	5.2	5.0	40	68	19	12	11	7.0	6.0	5.6
14	5.8	5.5	5.2	5.0	25	35	18	11	10	6.8	8.3	15
15	6.0	5.4	5.2	5.0	18	27	17	9.9	10	6.7	6.5	6.6
16	5.8	5.6	5.1	4.9	15	21	15	9.6	9.5	6.6	6.3	8.2
17	5.6	5.6	5.0	4.9	13	18	15	10	9.2	7.2	6.2	6.6
18	5.6	5.7	5.0	4.9	12	89	15	10	8.7	6.3	5.9	6.3
19	6.3	5.6	5.2	4.9	12	56	15	10	8.3	6.2	5.7	6.6
20	7.9	5.6	5.6	4.9	11	40	15	9.4	7.9	6.0	5.7	6.1
21	7.5	5.6	5.6	4.8	20	32	14	9.1	8.1	6.3	5.6	5.8
22	6.5	5.6	5.5	4.8	17	57	20	8.8	8.1	6.8	6.0	5.8
23	6.6	5.6	5.4	4.8	15	56	29	8.9	7.8	5.7	5.7	5.7
24	8.0	6.0	5.4	4.8	66	36	23	9.6	7.8	5.3	5.7	5.6
25	7.4	6.4	5.4	4.8	52	28	22	9.1	8.3	5.6	5.6	5.5
26	7.0	6.8	5.3	4.8	44	24	22	8.7	7.7	5.7	5.5	5.5
27	6.5	6.6	5.3	4.8	60	22	19	8.5	7.5	5.6	5.5	5.7
28	6.0	6.3	5.3	4.8	36	32	21	8.1	8.5	5.6	5.3	5.8
29	5.6	6.0	5.2	4.8	---	31	24	8.3	13	5.8	5.4	5.8
30	5.2	5.8	5.2	4.8	---	24	18	8.2	8.5	5.8	5.9	5.9
31	6.2	---	5.2	4.8	---	21	---	8.0	---	5.2	5.5	---
TOTAL	189.7	176.1	164.8	152.6	542.6	1068	1116	468.2	347.5	205.3	190.2	180.3
MEAN	6.12	5.87	5.32	4.92	19.4	34.5	37.2	15.1	11.6	6.62	6.14	6.01
MAX	8.0	6.9	5.6	5.1	66	89	191	57	74	10	9.6	15
MIN	4.9	5.4	5.0	4.8	4.6	15	14	8.0	7.3	5.2	5.3	4.9
CFSM	.17	.16	.15	.14	.53	.95	1.03	.42	.32	.18	.17	.17
IN.	.19	.18	.17	.16	.56	1.09	1.14	.48	.36	.21	.19	.18

CAL YR 1976 TOTAL 8939.4 MEAN 24.4 MAX 464 MIN 4.9 CFSM .67 IN 9.16
WTR YR 1977 TOTAL 4801.3 MEAN 13.2 MAX 191 MIN 4.6 CFSM .36 IN 4.92

03261500 GREAT MIAMI RIVER AT SIDNEY, OH

LOCATION.--Lat 40°17'13", long 84°09'00", Shelby County, Hydrologic Unit 05080001, on right bank 50 ft (15 m) upstream from North Street Bridge in Sidney, and 0.5 mi (0.8 km) downstream from Tawawa Creek.

DRAINAGE AREA.--541 mi^2 (1,401 km^2).

PERIOD OF RECORD.--February 1914 to current year. Prior to October 1962, published as Miami River at Sidney.

REVISED RECORDS.--WSP 1305: 1914(M), 1922(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 924.70 ft (281.848 m) above mean sea level, adjustment of 1912. Prior to Sept. 18, 1919, nonrecording gage at site 50 ft (15 m) downstream at datum 1.76 ft (0.536 m) higher. Sept. 18, 1919, to August, 1925, nonrecording gage at site 50 ft (15 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Water supply for city of Sidney is pumped from the Great Miami River 1,200 ft (366 m) upstream and from wells adjacent to Great Miami River upstream from station. The pumpage averaged 4.1 ft^3/s (0.12 m^3/s) in 1977 and is returned as sewage 1.2 mi (1.9 km) downstream from the station. Some regulation by Indian Lake, 28 mi (45 km) upstream, capacity, 45,900 acre-ft (56.6 hm^3) prior to 1926; water diverted into Miami and Erie Canal at Port Jefferson, 2.8 mi (4.5 km) upstream, prior to 1926; amount of diversion not published.

COOPERATION.--Gage-height charts, tapes, and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--52 years (1925-77) 473 ft^3/s (13.40 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,700 ft^3/s (586 m^3/s) Mar. 20, 1927, gage height, 14.4 ft (4.39 m), from rating curve extended above 6,700 ft^3/s (195 m^3/s) on basis of velocity-area studies; maximum gage height, 15.91 ft (4.849 m) Jan. 21, 1959; minimum discharge, 1.5 ft^3/s (0.041 m^3/s) Aug. 13, 1963, result of temporary storage behind dam upstream; minimum daily discharge, 8.0 ft^3/s (0.23 m^3/s) Sept. 23, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913 reached a stage of 19.6 ft (5.97 m), present datum, discharge, 44,000 ft^3/s (1,250 m^3/s), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,480 ft^3/s (98.6 m^3/s) Apr. 3 (base, 4,000 ft^3/s, 113 m^3/s), gage height, 6.73 ft (2.051 m); minimum daily, 22 ft^3/s (0.62 m^3/s) Aug. 5, result of temporary storage behind dam upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	76	51	54	31	603	410	191	62	99	27	32
2	47	76	46	52	30	373	1500	187	55	100	28	31
3	46	69	44	50	30	303	3180	184	59	78	26	33
4	43	63	52	48	29	920	2320	597	58	61	24	37
5	41	61	49	48	29	1470	1790	1090	53	51	22	37
6	48	60	49	47	28	1110	1350	785	51	46	23	37
7	50	58	54	47	27	780	1060	606	54	46	40	33
8	52	56	62	46	27	539	794	479	84	48	53	30
9	57	57	54	45	26	416	554	404	279	50	49	28
10	56	60	49	45	26	355	394	347	477	44	48	26
11	55	56	46	44	40	307	338	237	262	41	53	27
12	51	54	45	43	78	326	293	186	178	38	61	24
13	47	55	44	43	422	754	263	169	139	37	58	39
14	45	56	43	42	428	779	245	164	118	35	64	56
15	44	54	43	42	320	561	232	152	99	33	63	92
16	46	59	42	42	250	431	205	139	85	32	50	126
17	44	160	42	42	180	379	185	123	71	39	52	144
18	44	177	41	42	140	775	180	113	63	50	46	154
19	45	179	41	42	120	1330	166	107	62	47	41	107
20	57	181	54	41	110	1130	156	100	56	39	37	90
21	62	181	50	40	110	904	145	91	53	40	36	98
22	62	182	46	39	130	910	151	86	54	45	36	91
23	62	180	45	38	626	1260	187	81	50	42	36	67
24	81	178	44	38	1520	1070	246	79	48	38	34	56
25	89	154	44	37	1450	820	261	76	51	39	34	52
26	81	102	43	37	1040	562	231	73	49	38	37	50
27	73	97	43	36	1130	430	211	75	52	35	34	50
28	66	83	42	35	1010	498	192	73	63	33	32	55
29	61	71	42	34	---	807	282	66	206	35	35	56
30	63	58	45	33	---	683	233	72	149	32	34	49
31	74	---	50	32	---	510	---	67	---	30	33	---
TOTAL	1741	2953	1445	1304	9387	22095	17754	7199	3140	1421	1246	1807
MEAN	56.2	98.4	46.6	42.1	335	713	592	232	105	45.8	40.2	60.2
MAX	89	182	62	54	1520	1470	3180	1090	477	100	64	154
MIN	41	54	41	32	26	303	145	66	48	30	22	24

CAL YR 1976 TOTAL 130207 MEAN 356 MAX 4600 MIN 37
WTR YR 1977 TOTAL 71492 MEAN 196 MAX 3180 MIN 22

03261950 LORAMIE CREEK NEAR NEWPORT, OH

LOCATION.--Lat 40°18'25", long 84°23'02", in SE 1/4 sec, 24, T.11 N., R.4 E., Shelby County, Hydrologic Unit 05080001, right bank at downstream side of bridge on Cardo Roman Road, 1.1 mi (1.8 km) northeast of Newport, 3 mi (5 km) south of Fort Loramie, and 3 mi (5 km) downstream from Mile Creek.

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WRD Ohio 1971: 1966(M).

GAGE.--Water-stage recorder. Datum of gage is 927.00 ft (282.550 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good, except those for winter periods, which are fair. Some regulation by Lake Loramie 5 mi (8 km) upstream, capacity, 13,000 acre-ft (16.0 hm³).

COOPERATION.--Gage-height charts and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--13 years, 125 ft³/s (3.540 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,370 ft³/s (95.4 m³/s) Feb. 24, 1975, gage height, 14.08 ft (4.292 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Aug. 15, 16, 1965, Sept. 10-12, 14, 15, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913 reached a stage of 17.0 ft (5.18 m) and flood of Jan. 21, 1959 a stage of 14.2 ft (4.33 m), from flood profile furnished by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,310 ft³/s (37.1 m³/s) Apr. 3 (base, 1,500 ft³/s, 42.5 m³/s), gage height, 10.40 ft (3.170 m); minimum daily, 0.29 ft³/s (0.008 m³/s) June 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	4.6	3.2	.86	.54	166	85	18	.29	51	1.2	.94
2	2.0	3.1	2.8	.84	.52	84	473	19	.70	22	.98	.85
3	1.7	2.7	2.6	.82	.52	62	1230	21	.85	9.6	.85	.98
4	1.6	2.6	2.4	.80	.52	404	924	86	.81	5.0	1.1	.97
5	1.4	2.0	2.3	.78	.52	577	404	170	.75	3.7	.99	.70
6	2.3	1.5	2.2	.76	.54	289	214	101	.81	3.1	.94	.64
7	9.4	1.4	2.1	.74	.62	146	127	66	.98	2.7	12	.71
8	3.0	1.4	2.0	.72	1.7	86	93	37	1.0	9.1	5.3	.84
9	1.8	1.2	1.9	.70	11	62	60	26	12	5.1	3.5	.93
10	2.7	1.2	1.9	.68	16	51	49	13	5.8	3.0	2.8	1.2
11	1.9	1.2	1.8	.66	18	45	41	8.0	4.2	1.8	5.9	1.5
12	1.8	1.2	1.7	.64	41	55	36	5.0	3.4	1.6	22	1.2
13	1.6	1.2	1.7	.62	84	212	30	3.3	2.5	2.1	14	3.2
14	1.8	1.2	1.6	.60	42	179	31	2.7	2.3	1.8	11	26
15	1.8	1.1	1.6	.60	23	106	27	2.6	2.2	1.5	4.5	11
16	1.8	1.1	1.5	.58	17	68	19	1.6	1.9	1.4	3.1	88
17	1.9	1.1	1.5	.58	14	49	17	1.1	1.7	43	2.9	224
18	1.8	1.1	1.4	.58	52	300	17	.85	1.8	47	1.8	97
19	1.8	1.1	1.4	.56	90	443	20	.76	2.3	14	1.2	47
20	4.2	1.1	1.3	.56	74	258	26	.64	2.4	5.8	1.1	26
21	5.9	1.1	1.2	.56	76	186	19	.57	2.3	3.5	1.1	14
22	4.8	1.1	1.2	.56	82	292	17	.37	2.0	2.7	5.0	8.6
23	4.4	1.1	1.2	.54	96	477	36	.33	2.8	2.0	4.2	5.6
24	8.6	1.1	1.1	.54	271	312	36	.33	2.8	1.6	2.0	4.4
25	7.1	1.1	1.1	.54	289	182	27	8.2	7.6	1.9	1.6	4.1
26	3.7	3.5	1.1	.54	215	114	25	9.6	30	2.9	.94	3.6
27	2.0	5.8	1.0	.54	404	81	18	1.8	8.9	1.7	.70	7.0
28	1.6	5.8	.98	.54	376	291	20	.77	9.0	1.1	.57	7.5
29	1.4	4.5	.96	.54	---	394	32	.52	184	.96	.64	7.3
30	1.7	3.8	.92	.54	---	222	24	.42	136	2.3	3.0	6.8
31	5.4	---	.90	.54	---	128	---	.33	---	1.8	1.6	---
TOTAL	94.9	62.0	50.56	19.66	2296.48	6321	4177	606.79	434.09	256.76	118.51	602.56
MEAN	3.06	2.07	1.63	.63	82.0	204	139	19.6	14.5	8.28	3.82	20.1
MAX	9.4	5.8	3.2	.86	404	577	1230	170	184	51	22	224
MIN	1.4	1.1	.90	.54	.52	45	17	.33	.29	.96	.57	.64

CAL YR 1976 TOTAL 32973.19 MEAN 90.1 MAX 2500 MIN .64
WTR YR 1977 TOTAL 15040.31 MEAN 41.2 MAX 1230 MIN .29

03262000 LORAMIE CREEK AT LOCKINGTON, OH

LOCATION.--Lat 40°12'35", long 84°14'32", in NE 1/4 sec. 30, T.7 N., R.6 E., Shelby County, Hydrologic Unit 05080001, on left bank at downstream side of county road bridge, 1,300 ft (396 m) downstream from Lockington Dam, 0.5 mi (0.8 km) northwest of Lockington, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--257 mi² (666 km²).

PERIOD OF RECORD.--October 1915 to current year.

REVISED RECORDS.--WSP 923: 1916. WSP 1908: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 800.03 ft (243.849 m) above mean sea level, adjustment of 1912. Prior to July 3, 1924 nonrecording gage at same site at datum 75.96 ft (23.153 m) higher. July 3, 1924, to Aug. 17, 1926, nonrecording gage, and Aug. 18 to Sept. 30, 1926, water-stage recorder, at same site at datum 74.96 ft (22.848 m) higher.

REMARKS.--Records good, except those for winter periods, which are fair. Slight regulation by Lake Loramie 18 mi (29 km) upstream, capacity, 13,000 acre-ft (16.0 hm³). Flood flow regulated by Lockington retarding basin beginning in 1921.

COOPERATION.--Gage-height charts, tapes and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--62 years, 205 ft³/s (5.806 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s (295 m³/s) May 7, 1916, gage height, 86.4 ft (26.33 m), present datum, from rating curve extended above 5,400 ft³/s (153 m³/s); minimum daily, 1.7 ft³/s (0.048 m³/s) Sept. 4, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913 reached a stage of 91.6 ft (27.92 m), present datum, discharge, 25,600 ft³/s (725 m³/s), at site upstream from Turtle Creek, drainage area, 211 mi² (546 km²), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,680 ft³/s (75.9 m³/s) Apr. 2, gage height, 81.60 ft (24.872 m); minimum daily, 1.7 ft³/s (0.048 m³/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	8.7	5.3	4.1	4.0	259	141	45	12	76	5.7	5.9
2	5.9	9.5	4.8	4.0	4.0	148	1310	40	11	41	5.9	6.1
3	5.3	10	4.4	4.4	4.0	108	1730	40	10	25	5.5	3.6
4	5.7	8.9	4.3	5.0	4.0	665	1210	175	9.8	17	4.8	1.7
5	5.7	8.7	4.3	5.0	4.0	881	665	270	9.8	13	4.8	2.7
6	5.7	8.1	4.4	4.8	4.0	441	317	187	9.5	11	4.3	5.7
7	5.5	7.6	5.1	4.6	4.0	233	213	141	9.2	9.8	6.6	5.5
8	5.9	8.1	5.3	4.5	4.0	148	167	100	9.2	10	9.5	4.7
9	6.6	7.8	4.8	4.3	20	111	122	71	11	14	11	3.9
10	8.7	7.6	4.8	4.2	54	90	98	57	15	12	9.8	3.6
11	6.8	7.6	5.1	4.2	53	78	88	44	14	9.8	8.9	3.6
12	6.1	7.6	4.9	4.2	54	96	76	37	14	8.7	9.2	3.5
13	5.9	7.3	4.9	4.2	163	441	68	32	13	8.1	19	3.8
14	5.1	7.1	4.8	4.2	148	287	62	28	12	7.6	17	5.7
15	4.1	7.1	4.8	4.2	75	187	63	25	10	7.1	15	22
16	4.4	6.8	4.8	4.2	47	125	52	24	9.5	6.3	11	77
17	4.8	7.3	4.8	4.2	33	90	43	21	8.4	6.3	9.5	184
18	4.3	6.8	4.8	4.2	42	484	43	20	8.7	39	8.1	138
19	5.3	6.8	4.8	4.2	128	621	41	19	7.8	33	7.1	72
20	6.6	6.8	5.5	4.2	119	386	44	18	8.9	17	6.1	45
21	7.1	7.1	5.1	4.2	122	270	43	16	8.9	13	6.3	29
22	6.3	6.8	4.6	4.4	155	372	40	15	11	10	6.6	20
23	7.6	7.1	4.5	4.5	417	654	49	15	12	7.8	6.3	15
24	9.8	6.8	4.5	4.7	813	425	65	14	9.5	6.8	8.4	12
25	10	6.1	4.4	4.6	458	259	54	14	9.2	6.3	8.4	8.9
26	14	7.3	4.4	4.5	311	179	46	25	13	6.3	6.3	6.3
27	11	9.2	4.4	4.4	688	135	42	25	28	5.5	5.9	8.5
28	9.2	8.4	4.4	4.3	511	357	39	18	17	4.9	5.9	8.3
29	7.8	9.2	4.4	4.2	---	579	66	15	32	6.3	4.9	6.9
30	7.1	6.3	4.3	4.1	---	344	57	14	159	6.1	5.9	6.6
31	8.7	---	4.3	4.0	---	200	---	13	---	6.1	5.9	---
TOTAL	213.1	230.5	146.0	134.8	4443.0	9653	7054	1578	512.4	450.8	249.6	719.5
MEAN	6.87	7.68	4.71	4.35	159	311	235	50.9	17.1	14.5	8.05	24.0
MAX	14	10	5.5	5.0	813	881	1730	270	159	76	19	184
MIN	4.1	6.1	4.3	4.0	4.0	78	39	13	7.8	4.9	4.3	1.7

CAL YR 1976 TOTAL 54359.7 MEAN 149 MAX 3810 MIN 4.1
WTR YR 1977 TOTAL 25384.7 MEAN 69.5 MAX 1730 MIN 1.7

03262700 GREAT MIAMI RIVER AT TROY, OH

LOCATION.--Lat 40°02'25", long 84°11'52", Miami County, Hydrologic Unit 05080001, 400 ft (122 m) downstream from B. and O. Railroad bridge, 1,300 ft (396 m) downstream from bridge on State Highway 55 at Troy, 1.2 mi (1.9 km) upstream from small left bank tributary, and 2.3 mi (3.7 km) downstream from Spring Creek.

DRAINAGE AREA.--926 mi^2 (2,398 km^2).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961, 1962 (published as Miami River at Troy). October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 810.67 ft (247.092 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Flood flow regulated by retarding basin on Loramie Creek, 18 mi (29 km) upstream. Low and medium flow slightly regulated by Indian Lake; capacity, 45,900 acre-ft (56.6 hm^3), 54 mi (87 km) upstream. Water supply for city of Troy is pumped from wells adjacent to the Great Miami River upstream from the station. The pumpage averaged 4.5 ft^3/s (0.13 m^3/s) in 1977 and is returned as sewage 1 mi (2 km) downstream from the station. Water-quality data collected at this site 1965 to 1974.

COOPERATION.--Gage-height charts, tapes, and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--15 years, 766 ft^3/s (21.69 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft^3/s (490 m^3/s) Mar. 6, 1963, gage height, 14.66 ft (4.468 m); minimum, 0.50 ft^3/s (0.014 m^3/s) July 12, 13, 1963, result of temporary storage during repair of dam upstream; minimum daily discharge, 4.3 ft^3/s (0.122 m^3/s) July 17, 1977 result of dam closure upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 11, 1958 reached a stage of 16.4 ft (5.00 m), discharge, 21,000 ft^3/s (595 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,890 ft^3/s (195 m^3/s) Apr. 3, gage height, 8.82 ft (2.688 m); minimum daily discharge, 4.3 ft^3/s (0.122 m^3/s) July 17 result of dam closure upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	93	76	31	28	1150	651	315	100	268	66	53
2	49	91	76	42	28	679	2530	295	84	169	58	59
3	45	92	59	52	28	501	6030	285	78	138	55	59
4	37	86	57	60	27	1310	4360	679	77	114	51	57
5	43	81	71	56	27	2700	3080	1630	80	97	49	56
6	52	77	73	50	27	1910	2130	1320	83	93	42	59
7	63	76	86	44	27	1220	1560	968	82	82	48	70
8	58	73	74	39	27	813	1180	744	90	84	68	47
9	71	61	67	37	27	610	852	571	131	119	71	43
10	80	57	62	35	27	521	624	540	502	155	71	40
11	76	56	56	35	70	461	527	398	362	85	97	37
12	76	59	50	34	162	481	467	325	233	70	115	33
13	72	61	48	33	290	1170	411	269	193	62	95	41
14	61	67	46	32	508	1330	369	249	145	58	104	92
15	64	68	44	31	352	943	358	234	134	52	100	96
16	61	59	42	31	264	658	325	198	106	29	96	221
17	59	73	40	30	216	565	290	182	120	4.3	88	288
18	57	177	38	30	186	986	275	170	113	21	81	356
19	48	185	38	30	216	2150	264	162	105	94	66	235
20	62	185	42	30	244	1810	244	148	101	92	50	159
21	64	189	46	29	220	1400	234	127	91	87	54	123
22	67	189	42	29	295	1280	249	118	80	87	79	117
23	76	177	39	29	943	2030	285	107	76	82	71	104
24	116	175	37	28	2530	1770	310	111	74	90	83	86
25	105	186	34	28	2400	1300	381	104	71	78	87	74
26	95	172	33	28	1700	885	347	102	72	78	80	81
27	86	134	32	28	1940	651	310	130	88	55	69	77
28	83	119	31	28	1900	790	331	117	98	47	50	76
29	81	105	30	28	---	1500	375	109	128	45	53	80
30	80	80	29	28	---	1240	417	104	361	69	67	79
31	95	---	28	28	---	828	---	108	---	75	55	---
TOTAL	2135	3303	1526	1073	14709	35642	29766	10919	4058	2679.3	2219	2998
MEAN	68.9	110	49.2	34.6	525	1150	992	352	135	86.4	71.6	99.9
MAX	116	189	86	60	2530	2700	6030	1630	502	268	115	356
MIN	37	56	28	28	27	461	234	102	71	4.3	42	33

CAL YR 1976 TOTAL 205042.0 MEAN 560 MAX 9190 MIN 28
WTR YR 1977 TOTAL 111027.3 MEAN 304 MAX 6030 MIN 4.3

03263000 GREAT MIAMI RIVER AT TAYLORSVILLE, OH

LOCATION.--Lat 39°52'22", long 84°09'51", in SW 1/4 sec. 36, R.8, T.2, Montgomery County, Hydrologic Unit 05080001, on left bank 600 ft (183 m) downstream from Taylorsville Dam, 0.8 mi (1.3 km) north of Taylorsville, 2.1 mi (3.4 km) east of Vandalia (revised) and 9.5 mi (15.3 km) upstream from Stillwater River.

DRAINAGE AREA.--1,149 mi² (2,976 km²).

PERIOD OF RECORD.--January 1914 to September 1917 (published as Miami River at Tadmor), October 1921 to current year (published as Miami River at Taylorsville 1921-62). Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site at Tadmor, January 1914 to July 1920, are contained in reports of the National Weather Srvice.

REVISED RECORDS.--WSP 743: 1924(M). WSP 853: 1930, 1937. WSP 923: 1922-24. WSP 1385: 1916. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 700.08 ft (213.384 m) above mean sea level, adjustment of 1912. Prior to October 1921, nonrecording gage at site 1.8 mi (2.9 km) upstream at different datum. Jan. 1, 1922, to Nov. 11, 1925, nonrecording gage at site 600 ft (183 m) upstream at outlet works of Taylorsville Dam at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Flood flow regulated by retarding basins on Great Miami River, just upstream from station and on Loramie Creek 28 mi (45 km) upstream from station beginning in 1921. Low and medium flow slightly regulated by Indian Lake 64 mi (103 km) upstream from station, and by Lake Loramie 47 mi (76 km) upstream from station on Loramie Creek; combined capacity, 58,900 acre-ft (72.6 hm³).

COOPERATION.--Gage-height charts, tapes and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--59 years, 984 ft³/s (27.87 m³/s), 11.63 in/yr (295 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,400 ft³/s (889 m³/s) Jan. 22, 1959, gage height, 75.44 ft (22.994 m); minimum daily, 25 ft³/s (0.71 m³/s) July 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 25.4 ft (7.74 m) at site at Tadmor, discharge, 127,000 ft³/s (3,600 m³/s) computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,420 ft³/s (267 m³/s) Apr. 3 gage height, 69.45 ft (21.168 m); minimum daily, 25 ft³/s (0.71 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	137	80	42	34	1360	767	461	145	627	68	65
2	89	127	68	52	34	823	2610	413	131	262	63	70
3	83	134	60	70	34	605	8560	411	114	199	57	65
4	78	127	60	83	33	1270	5570	1140	106	167	60	69
5	66	120	83	88	32	3000	3830	2150	115	141	55	75
6	70	112	81	83	32	2230	2620	1850	106	124	52	94
7	91	108	106	70	31	1480	1930	1530	119	110	68	86
8	86	106	101	56	31	1030	1510	1150	120	103	89	86
9	86	102	80	50	30	760	1180	868	157	111	91	63
10	104	88	74	48	30	628	902	754	400	165	90	60
11	105	83	72	46	100	543	749	613	463	156	105	54
12	101	85	70	45	252	578	659	487	291	99	149	53
13	99	84	68	44	334	1230	583	414	237	82	130	53
14	92	94	66	43	710	1520	527	371	197	78	152	139
15	81	97	64	42	638	1130	496	343	175	65	125	135
16	86	96	64	41	478	819	465	311	150	66	133	222
17	83	81	64	40	356	662	415	291	137	43	120	287
18	82	160	62	40	276	894	390	266	138	25	103	376
19	81	217	62	39	239	2210	371	251	131	63	90	317
20	88	216	62	38	299	2000	353	236	122	116	71	219
21	118	217	74	38	266	1580	346	207	114	109	66	164
22	90	212	64	37	301	1380	366	190	105	103	91	148
23	96	211	60	36	1300	1990	406	184	97	94	91	137
24	161	206	56	36	2930	1940	424	178	94	82	98	114
25	160	213	52	35	2920	1480	487	169	93	78	86	96
26	135	233	50	35	2000	1090	466	158	88	84	78	90
27	126	181	48	35	1930	798	410	178	99	73	76	92
28	114	145	46	35	2070	799	443	167	125	55	64	85
29	118	129	44	35	---	1440	561	164	125	61	57	88
30	118	113	42	34	---	1410	587	155	306	57	68	84
31	152	---	40	34	---	1010	---	149	---	69	78	---
TOTAL	3135	4234	2023	1450	17720	39689	38983	16209	4800	3667	2724	3686
MEAN	101	141	65.3	46.8	633	1280	1299	523	160	118	87.9	123
MAX	161	233	106	88	2930	3000	8560	2150	463	627	152	376
MIN	66	81	40	34	30	543	346	149	88	25	52	53
CFSM	.09	.12	.06	.04	.55	1.11	1.13	.46	.14	.10	.08	.11
IN.	.10	.14	.07	.05	.57	1.28	1.26	.52	.16	.12	.09	.12

CAL YR 1976 TOTAL 264340 MEAN 722 MAX 10300 MIN 40 CFSM .63 IN 8.56
WTR YR 1977 TOTAL 138320 MEAN 379 MAX 8560 MIN 25 CFSM .33 IN 4.48

03264000 GREENVILLE CREEK NEAR BRADFORD, OH

LOCATION (revised).--Lat 40°06'30", long 84°25'48", in SW 1/4 NE 1/4 sec. 34, T.9 N., R.4 E., Miami County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on State Highway 721, 0.8 mi (1.3 km) downstream from small left bank tributary, 1.8 mi (2.9 km) south of Bradford, and 6 mi (10 km) upstream from mouth.

DRAINAGE AREA.--193 mi² (500 km²).

PERIOD OF RECORD.--October 1930 to current year. Prior to April 1931, monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 803: 1931(M). WSP 1235: 1936, 1937(M). WRD 1970: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 948.9 ft (289.22 m) above mean sea level, adjustment of 1912. Prior to Oct. 1, 1942, nonrecording gage at same site and datum. Apr. 6, 1962 to Nov. 13, 1963, water-stage recorder at site 200 ft (61 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Some diurnal fluctuation caused by mill 8 mi (13 km) upstream from station; daily flows are not affected appreciably.

COOPERATION.--Gage-height charts, tapes, and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--47 years, 168 ft³/s (4.758 m³/s), 11.82 in/yr (300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,320 ft³/s (264 m³/s) May 14, 1933, gage height, 9.2 ft (2.80 m); maximum gage height, 10.31 ft (3.142 m) Mar. 5, 1963, from high-water mark in well (ice jam); minimum discharge, 4.8 ft³/s (0.14 m³/s) Sept. 17, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 12.1 ft (3.69 m), discharge, 18,200 ft³/s (515 m³/s), at site with drainage area of 213 mi² (552 km²), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) Apr. 3 (base 1,500 ft³/s, 42.5 m³/s), gage height, 5.50 ft (1.676 m); maximum gage height, 6.37 ft (1.942 m) Feb. 11 (ice jam); minimum, 7.0 ft³/s (0.20 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	30	22	18	14	150	104	88	30	35	12	20
2	7.7	28	20	19	14	114	688	88	27	33	12	17
3	19	24	19	19	14	109	1660	85	28	28	11	18
4	20	23	19	19	14	518	814	185	34	23	11	15
5	16	25	18	19	14	523	478	213	27	20	11	14
6	24	27	15	18	14	261	317	150	28	18	11	14
7	33	22	22	18	14	176	238	137	29	17	28	32
8	24	21	20	18	14	136	190	115	29	17	35	39
9	21	20	21	17	14	117	158	97	37	19	32	16
10	23	20	23	17	14	103	146	83	52	21	21	14
11	20	22	20	17	36	90	134	74	47	20	21	13
12	18	25	16	17	76	124	113	69	36	18	59	13
13	18	20	16	17	100	245	107	66	31	19	42	14
14	29	17	15	17	86	170	101	62	30	17	46	36
15	28	18	21	17	72	131	95	58	29	17	33	37
16	23	21	26	17	60	107	95	52	27	17	28	111
17	27	22	29	17	54	92	88	49	25	15	22	127
18	21	32	25	17	49	149	83	49	22	14	18	71
19	21	27	22	16	44	149	81	45	23	14	17	28
20	32	23	22	16	38	140	78	45	25	14	15	33
21	36	25	18	16	34	122	76	43	22	14	20	24
22	39	25	16	16	56	144	76	40	22	13	32	23
23	31	25	15	16	218	216	94	37	22	13	17	23
24	48	24	14	16	552	167	78	43	23	12	19	17
25	40	25	14	16	487	128	73	40	22	12	22	27
26	30	29	13	15	277	105	65	35	42	11	18	21
27	29	43	13	15	363	103	68	33	30	11	16	20
28	24	32	12	15	250	108	76	33	42	11	16	17
29	21	36	12	15	---	255	95	30	84	12	17	18
30	25	27	12	14	---	181	74	35	40	26	33	18
31	38	---	11	14	---	133	---	44	---	16	22	---
TOTAL	807.7	756	565	516	2994	5326	6519	2171	945	547	717	888
MEAN	26.1	25.2	18.2	16.7	107	172	217	70.0	31.5	17.6	23.1	29.6
MAX	48	43	29	19	552	523	1660	213	84	35	59	127
MIN	7.7	17	11	14	14	90	65	30	22	11	11	13
CFSM	.14	.13	.09	.09	.55	.89	1.12	.36	.16	.09	.12	.15
IN.	.16	.15	.11	.10	.58	1.03	1.26	.42	.18	.11	.14	.17

CAL YR 1976 TOTAL 42843.9 MEAN 117 MAX 1950 MIN 7.2 CFSM .61 IN 8.26
WTR YR 1977 TOTAL 22743.7 MEAN 62.3 MAX 1660 MIN 7.7 CFSM .32 IN 4.38

03265000 STILLWATER RIVER AT PLEASANT HILL, OH

LOCATION.--Lat [illegible]0°03'28", long 84°21'22", in SW 1/4 sec. 18, T.7 N., R.5 E., Miami County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on Laurer Road, 0.8 mi (1.3 km) northwest of Pleasant Hill, 2 mi (3 km) downstream from Painter Creek, and 2 mi (3 km) upstream from Canyon Run.

DRAINAGE AREA.--503 mi² (1,303 km²).

PERIOD OF RECORD.--October 1916 to September 1928, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site March 1922 to December 1963 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 523: 1917. WSP 1305: 1920(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 846.73 ft (258.083 m) above mean sea level, adjustment of 1912. Prior to Dec. 23, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

COOPERATION.--Gage-height charts, tapes and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--55 years, 433 ft³/s (12.26 m³/s), 11.69 in/yr (297 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s (748 m³/s) Jan. 14, 1937, from rating curve extended above 14,500 ft³/s (396 m³/s) on basis of velocity-area study; maximum gage height, 17.98 ft (5.480 m) Jan. 21, 1959; minimum discharge observed, 4 ft³/s (0.11 m³/s) Oct. 17, 1920, July 12, 22, Aug. 30, 1921.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 25, 1913 reached a stage of 17.5 ft (5.33 m). Discharge, at site about 3 mi (5 km) upstream, 51,400 ft³/s (1,460 m³/s), computed by Miami Conservancy District. This stage is not comparable with present gage heights because of failure of levee in 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,600 ft³/s (159 m³/s) Apr. 3 (base, 5,000 ft³/s, 142 m³/s) gage height, 9.33 ft (2.844 m); minimum, 8.6 ft³/s (0.25 m³/s) Aug. 3, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	52	35	20	19	335	234	130	45	53	19	28
2	18	46	28	19	19	222	2030	123	42	44	13	23
3	13	43	25	19	19	212	4810	123	38	36	9.7	19
4	24	39	27	26	19	1100	2000	303	40	31	10	21
5	25	39	30	26	19	1300	1050	537	38	28	10	17
6	27	41	32	26	19	565	679	374	38	24	9.6	16
7	42	40	39	25	19	369	500	303	42	25	14	17
8	35	36	35	25	19	273	405	249	42	23	31	33
9	39	33	34	25	19	226	325	205	46	25	35	28
10	35	33	35	24	22	201	290	172	57	32	33	16
11	36	32	37	24	38	175	257	149	64	32	32	13
12	30	37	37	23	75	212	222	133	56	27	49	12
13	25	37	28	22	200	666	201	123	48	26	63	14
14	25	33	31	22	260	429	188	114	45	22	51	19
15	34	31	32	21	180	294	175	104	45	20	53	40
16	31	33	33	21	140	230	163	94	40	18	43	121
17	28	33	43	21	120	188	157	90	38	18	38	166
18	31	34	36	21	95	359	143	85	35	16	30	124
19	26	39	39	20	85	521	135	81	33	14	25	74
20	36	36	40	20	75	364	130	76	32	12	25	52
21	44	33	25	20	70	307	123	76	31	14	26	42
22	45	35	30	20	120	344	130	68	31	13	36	35
23	49	34	31	20	439	672	140	66	30	12	33	33
24	62	34	24	20	1140	449	138	64	32	12	27	29
25	64	34	24	20	1080	316	126	61	33	16	28	26
26	57	42	24	20	565	253	117	58	38	16	27	30
27	49	58	24	19	737	222	110	57	71	11	24	26
28	39	57	22	19	629	359	121	54	74	12	21	29
29	35	52	21	19	---	672	166	48	57	14	25	26
30	36	42	20	19	---	439	149	46	54	15	33	29
31	48	---	19	19	---	312	---	50	---	27	33	---
TOTAL	1119	1168	940	665	6241	12586	15414	4216	1315	688	906.3	1160
MEAN	36.1	38.9	30.3	21.5	223	406	514	136	43.8	22.2	29.2	38.7
MAX	64	58	43	26	1140	1300	4810	537	74	53	63	166
MIN	13	31	19	19	19	175	110	46	30	11	9.6	12
CFSM	.07	.08	.06	.04	.44	.81	1.02	.27	.09	.04	.06	.08
IN.	.08	.09	.07	.05	.46	.93	1.14	.31	.10	.05	.07	.09

CAL YR 1976 TOTAL 104249.0 MEAN 285 MAX 6380 MIN 10 CFSM .57 IN 7.71
WTR YR 1977 TOTAL 46418.3 MEAN 127 MAX 4810 MIN 9.6 CFSM .25 IN 3.43

03266000 STILLWATER RIVER AT ENGLEWOOD, OH

LOCATION.--Lat 39°52'10", long 84°16'57", in NW 1/4 sec. 23, T.5 N., R.5 E., Montgomery County, Hydrologic Unit 05080001, on right bank 1,000 ft (305 m) downstream from Englewood Dam, 1 mi (2 km) southeast of Englewood, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--650 mi^2 (1,684 km^2).

PERIOD OF RECORD.--October 1925 to current year (monthly discharge only, October 1925, published in WSP 1305).

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 699.97 ft (213.351 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good except those for winter periods, which are fair. Flood flow regulated by Englewood retarding basin.

COOPERATION.--Gage-height tapes and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--52 years, 564 ft^3/s (15.97 m^3/s), 11.78 in/yr (299 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,980 ft^3/s (283 m^3/s) June 15, 1958, gage height, 80.88 ft (24.652 m); minimum, 3.7 ft^3/s (0.10 m^3/s) Sept. 30, Oct. 1, 1944, gage height, 71.36 ft (21.751 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a discharge of 85,400 ft^3/s (2,420 m^3/s) at site 1 mi (2 km) downstream, computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,120 ft^3/s (145 m^3/s) Apr. 3, gage height, 77.42 ft (23.598 m); minimum, 14 ft^3/s (0.40 m^3/s) Aug. 5,6, gage height, 71.58 ft (21.817 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	57	50	29	28	497	333	211	69	360	20	39
2	39	59	51	28	27	314	1310	197	67	211	24	35
3	35	57	45	28	27	267	4700	188	62	113	20	31
4	28	54	40	29	28	817	4610	360	57	74	17	28
5	24	50	42	31	28	1930	2550	837	56	59	14	27
6	34	47	42	32	28	919	1350	670	59	48	14	27
7	36	48	48	34	28	519	898	579	54	42	33	24
8	40	47	48	35	28	374	678	457	54	41	33	23
9	48	44	44	36	28	302	526	367	67	37	34	25
10	43	43	44	36	29	267	441	296	61	34	40	36
11	42	42	47	35	33	235	395	256	69	36	43	29
12	41	41	47	34	45	246	346	225	76	41	50	23
13	40	41	47	33	80	741	302	206	69	38	50	22
14	34	44	42	33	327	687	284	193	64	34	88	34
15	31	43	42	32	273	449	267	180	57	31	66	27
16	29	41	45	31	193	340	246	164	56	29	62	45
17	33	40	43	30	157	273	235	149	51	30	54	137
18	30	42	44	30	129	314	220	142	49	28	45	171
19	30	43	45	30	108	628	211	135	47	25	39	147
20	39	43	47	30	97	511	202	132	43	22	33	94
21	41	47	45	30	86	417	188	116	41	21	33	66
22	40	42	41	29	102	388	206	110	42	22	34	57
23	44	41	40	29	327	628	216	99	41	21	34	49
24	67	43	40	29	948	636	216	97	39	19	47	43
25	74	42	39	29	1350	441	206	97	40	17	38	40
26	74	51	38	28	788	340	193	94	42	16	33	34
27	66	59	35	28	670	290	176	89	42	17	34	33
28	61	62	34	28	898	314	180	84	69	18	31	31
29	53	62	32	28	---	696	230	80	78	22	30	30
30	51	56	31	28	---	636	235	74	71	23	32	28
31	64	---	30	28	---	441	---	69	---	20	35	---
TOTAL	1352	1431	1308	950	6890	15857	22158	6953	1692	1549	1152	1435
MEAN	43.6	47.7	42.2	30.6	246	512	739	224	56.4	50.0	37.2	47.8
MAX	74	62	51	36	1350	1930	4700	837	78	360	88	171
MIN	24	40	30	28	27	235	176	69	39	16	14	22
CFSM	.07	.07	.07	.05	.38	.79	1.14	.35	.09	.08	.06	.07
IN.	.08	.08	.07	.05	.39	.91	1.27	.40	.10	.09	.07	.08

CAL YR 1976 TOTAL 135475 MEAN 370 MAX 5800 MIN 19 CFSM .57 IN 7.75
WTR YR 1977 TOTAL 62727 MEAN 172 MAX 4700 MIN 14 CFSM .27 IN 3.59

03266500 MAD RIVER AT ZANESFIELD, OH

LOCATION.--Lat 40°21'01", long 83°40'28", Logan County, Hydrologic Unit 05080001, on left bank at upstream side of bridge on County Road No. 5 (adjacent to former U.S. Highway 33), 0.8 mi (1.3 km) upstream from Sugar Creek, and 1 mi (2 km) north of Zanesfield.

DRAINAGE AREA.--7.31 mi² (18.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,208.28 ft (368.284 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--31 years, 7.69 ft³/s (0.218 m³/s), 14.29 in/yr (363 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s (59.5 m³/s) Apr. 13, 1972, gage height, 9.54 ft (2.908 m) in gage house, from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of critical-depth measurement of peak flow; minimum, 0.30 ft³/s (0.008 m³/s) Jan. 16, 1966, gage height, 0.58 ft (0.177 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 192 ft³/s (5.43 m³/s) Apr. 2, gage height, 2.19 ft (0.668), no peak above base of 200 ft³/s (5.66 m³/s); minimum, 0.53 ft³/s (0.015 m³/s) Jan. 26, Feb. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	1.5	1.0	.80	.74	4.4	5.0	5.9	1.8	2.8	1.4	1.1
2	.95	1.4	1.0	.80	.80	3.3	93	5.7	1.7	2.1	1.2	1.2
3	.96	1.4	1.0	.80	.76	3.8	41	5.1	1.7	1.9	1.2	1.3
4	.85	1.4	1.0	.78	.72	21	22	22	1.7	1.8	1.2	1.2
5	.88	1.4	1.0	.76	.70	10	16	16	1.8	1.7	1.1	1.1
6	1.3	1.3	1.1	.76	.70	5.7	13	12	1.8	1.6	1.2	1.1
7	1.3	1.3	1.0	.74	.70	4.4	11	10	1.7	2.2	1.9	1.2
8	1.0	1.3	.95	.74	.70	3.6	8.8	7.4	8.7	2.0	1.4	1.3
9	1.3	1.3	.98	.72	.70	3.6	7.9	5.7	9.9	1.7	1.4	1.3
10	1.0	1.3	.88	.72	.70	3.4	7.0	5.6	4.5	1.6	1.9	1.3
11	.93	1.3	.86	.72	1.2	3.7	6.3	4.8	3.1	1.6	1.7	1.2
12	.91	1.3	.84	.72	1.9	11	5.6	4.5	2.8	1.6	1.8	1.1
13	.88	1.3	.84	.72	2.6	16	5.2	4.3	2.5	1.4	1.5	3.2
14	.89	1.3	.82	.72	1.8	6.5	4.8	4.4	2.4	1.3	1.9	2.9
15	.87	1.2	.86	.72	1.4	5.0	4.6	4.1	2.2	1.3	1.8	2.0
16	.89	1.2	.84	.72	1.2	3.8	4.5	3.5	2.1	1.3	1.5	3.5
17	.89	1.2	.82	.72	1.1	3.3	4.5	3.1	2.0	1.8	1.4	1.9
18	.89	1.3	.80	.72	.99	26	4.3	3.0	2.0	1.4	1.3	1.9
19	.93	1.3	.80	.72	.93	10	4.2	3.0	1.9	1.4	1.3	1.7
20	1.7	1.2	1.2	.72	.90	7.6	4.1	2.9	1.9	1.3	1.3	1.6
21	1.5	1.2	.90	.72	.88	5.6	3.9	2.6	1.8	1.6	1.6	1.6
22	1.4	1.2	.88	.72	2.0	15	6.2	2.5	1.8	1.4	1.4	1.5
23	1.4	1.2	.86	.72	14	11	8.7	2.4	1.9	1.3	1.3	1.5
24	2.7	1.1	.84	.72	23	6.5	7.5	2.5	1.9	1.3	1.3	1.6
25	1.7	1.3	.82	.72	12	5.3	7.0	2.3	2.0	1.3	1.2	1.8
26	1.5	1.9	.82	.70	7.6	4.5	6.9	2.1	1.7	1.2	1.2	1.8
27	1.3	1.6	.82	.70	11	4.3	6.0	2.0	2.8	1.2	1.2	1.9
28	1.3	1.4	.82	.70	5.7	7.5	7.2	1.9	3.7	1.2	1.2	1.9
29	1.3	1.2	.80	.70	---	6.5	7.4	1.9	5.7	1.3	1.2	1.9
30	1.4	1.0	.80	.70	---	5.5	6.4	1.9	2.6	1.3	1.3	1.9
31	1.8	---	.80	.70	---	5.2	---	1.9	---	1.4	1.2	---
TOTAL	37.58	39.3	27.67	22.62	97.42	233.0	340.0	157.0	84.1	48.3	43.5	50.5
MEAN	1.21	1.31	.89	.73	[illegible]	7.52	11.3	5.06	2.80	1.56	1.40	1.68
MAX	2.7	1.9	1.2	.80	23	26	93	22	9.9	2.8	1.9	3.5
MIN	.85	1.0	.80	.70	.70	3.3	3.9	1.9	1.7	1.2	1.1	1.1
CFSM	.17	.18	.12	.10	.48	1.03	1.55	.69	.38	.21	.19	.23
IN.	.19	.20	.14	.12	.50	1.19	1.73	.80	.43	.25	.22	.26

CAL YR 1976 TOTAL 2103.35 MEAN 5.75 MAX 105 MIN .73 CFSM .79 IN 10.70
WTR YR 1977 TOTAL 1180.99 MEAN 3.24 MAX 93 MIN .70 CFSM .44 IN 6.01

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03266500 MAD RIVER AT ZANESFIELD, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 28...	1145	8.0	590	8.0	9.0	11.3	97	.2	310	67	76	30
JUN 07...	1215	1.8	650	8.2	13.5	10.4	99	.8	350	36	83	34

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 28...	6.7	1.7	300	0	246	4.8	52	12	.2	5.5	332	1.2
JUN 07...	7.9	2.6	380	0	312	3.8	41	11	.2	9.4	377	.85

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 28...	.01	.02	.00	0	<10	2	50	3	40	.0	0	--
JUN 07...	.02	.12	.01	1	20	1	70	0	30	.0	10	4.9

03267000 MAD RIVER NEAR URBANA, OH

LOCATION.--Lat 40°06'27", long 83°47'57", on west line of sec. 35, T.5 E., R.11 N., Champaign County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on U.S. Highway 36, 1.8 mi (2.9 km) upstream from Dugan Run, 1.8 mi (2.9 km) downstream from Muddy Creek, and 2.5 mi (4.0 km) west of Urbana.

DRAINAGE AREA.--162 mi^2 (420 km^2).

PERIOD OF RECORD.--September 1925 to September 1931, August 1939 to current year.

REVISED RECORDS.--WSP 1305: 1930(M). WSP 1505: 1956. WSP 1625: 1929. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 985.22 ft (300.295 m) above mean sea level. Prior to May 18, 1930, nonrecording gage at same site and datum. May 18, 1930, to Sept. 30, 1931, nonrecording gage at site 600 ft (183 m) downstream at datum 0.36 ft (0.110 m) lower. Aug. 1 to Sept. 25, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good except those for periods of no gage-height record and winter periods, which are fair.

COOPERATION.--Gage-height graph, tapes and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--44 years, 140 ft^3/s (3.965 m^3/s), 11.74 in/yr (298 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s (227 m^3/s) Jan. 22, 1959, gage height, 12.05 ft (3.673 m), from rating curve extended above 4,000 ft^3/s (113 m^3/s) on basis of estimate of peak flow based on contracted-opening measurement at site 3 mi (5 km) downstream with drainage area of 235 mi^2 (609 km^2) adjusted to gage site by 0.8 power of the drainage-area ratio; minimum, 2.1 ft^3/s (0.059 m^3/s) Jan. 21, 1963, gage height, 2.33 ft (0.710 m), result of freezeup; minimum daily, 24 ft^3/s (0.68 m^3/s) Feb. 2, 3, 1945, Jan. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) Apr. 2 (base, 1,400 ft^3/s, 39.6 m^3/s), gage height, 5.87 ft (1.789 m); minimum daily, 30 ft^3/s Jan. 25-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	63	54	56	52	120	98	109	79	92	45	41
2	58	63	54	72	48	110	613	109	76	80	44	40
3	57	62	55	58	46	110	694	107	76	74	43	39
4	57	61	54	50	45	370	310	281	75	71	41	38
5	57	61	53	47	44	280	266	251	72	67	41	38
6	60	60	53	45	43	190	213	189	73	66	40	37
7	60	59	54	44	43	150	186	175	72	65	45	35
8	59	59	52	44	42	124	169	150	75	68	44	35
9	60	59	52	43	42	118	157	137	110	66	42	35
10	59	59	53	43	42	113	149	129	87	63	42	34
11	58	58	53	42	45	108	143	124	81	61	45	34
12	58	58	53	41	50	115	137	119	78	62	44	34
13	58	58	52	40	90	234	132	116	75	61	42	35
14	58	58	52	39	70	157	124	113	74	61	41	47
15	58	57	52	38	62	133	120	109	73	57	41	38
16	58	57	52	37	58	120	116	106	71	61	41	47
17	58	57	52	36	56	112	115	106	68	64	42	43
18	57	56	52	35	54	217	112	105	67	59	40	40
19	58	55	52	35	54	182	118	100	67	56	40	40
20	61	54	53	34	52	147	107	98	66	54	40	38
21	61	54	51	33	52	133	106	96	64	54	41	37
22	59	54	59	32	60	146	109	94	64	56	43	37
23	60	54	52	31	120	153	114	93	64	54	42	37
24	67	54	53	31	450	129	111	95	63	54	43	36
25	69	54	51	30	260	119	110	91	63	55	42	36
26	64	57	51	30	220	113	107	89	62	48	43	37
27	61	57	51	30	220	108	104	87	76	47	43	36
28	60	56	51	30	150	117	109	85	142	46	42	36
29	61	54	49	32	---	119	131	85	94	45	44	36
30	62	56	48	36	---	109	115	83	83	47	46	36
31	65	---	46	44	---	102	---	81	---	45	44	---
TOTAL	1857	1724	1619	1238	2570	4558	5107	3712	2290	1859	1316	1132
MEAN	59.9	57.5	52.2	39.9	91.8	147	173	120	76.3	60.0	42.5	37.7
MAX	69	63	59	72	450	370	694	281	142	92	46	47
MIN	57	54	46	30	42	102	98	81	62	45	40	34
CFSM	.37	.36	.32	.25	.57	.91	1.07	.74	.47	.37	.26	.23
IN.	.43	.40	.37	.28	.59	1.05	1.19	.85	.53	.43	.30	.26

CAL YR 1976 TOTAL 43310 MEAN 118 MAX 1160 MIN 46 CFSM .73 IN 9.95
WTR YR 1977 TOTAL 29062 MEAN 79.6 MAX 694 MIN 30 CFSM .49 IN 6.67

Note: No gage height record Jan. 13 to Mar. 7.

03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OH

LOCATION.--Lat 39°57'51", long 83°49'54", in W 1/2 sec. 1, R. 10, T.4, Clark County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on St. Paris Pike, 0.8 mi (1.3 km) southeast of Eagle City, 1.1 mi (1.8 km) downstream from Moore Run, 3.1 mi (5.0 km) upstream from Buck Creek, and 3.3 mi (5.3 km) south of Tremont City.

DRAINAGE AREA.--310 mi² (803 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 904.66 ft (275.740 m) above mean sea level.

REMARKS.--Records good, except those for the winter period, which are fair. Water supply for city of Springfield is pumped from wells, adjacent to Mad River, just upstream from station. Recharge to the well field is largely by induced infiltration from Mad River and Moore Run. The pumpage average 26.5 ft³/s (0.75 m³/s) in 1977 and is returned as sewage 1.4 mi (2.3 km) upstream from gaging station near Springfield (station 03269500).

AVERAGE DISCHARGE.--12 years, 294 ft³/s (8.326 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s (275 m³/s) June 26, 1971, gage height, 16.00 ft (4.877 m), from rating curve extended above 3,060 ft³/s (86.7 m³/s); minimum daily, 60 ft³/s (1.70 m³/s) Jan. 27, 28, 1977 (result of freezeup).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.8 ft (6.04 m), from data furnished by Miami Conservancy District. Flood of Jan. 21, 1959 reached a stage of 15.7 ft (4.79 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,390 ft³/s (209 m³/s) Apr. 2, (base, 2,500 ft³/s, 70.8 m³/s) gage height 14.85 ft (4.526 m); minimum daily, 60 ft³/s (1.70 m³/s Jan. 27, 28 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	133	115	260	110	245	151	212	146	290	130	87
2	112	129	111	200	100	206	2250	207	144	167	98	86
3	110	125	110	150	98	199	1580	205	142	149	95	86
4	111	123	111	120	96	670	805	690	140	142	93	84
5	112	120	105	98	94	628	681	633	139	138	92	88
6	121	118	106	96	92	374	525	489	141	132	90	93
7	113	116	113	94	90	287	441	445	139	129	100	87
8	111	116	105	92	88	240	380	347	139	152	103	86
9	123	118	103	90	86	218	336	298	181	136	106	84
10	115	116	105	88	84	200	310	270	154	127	96	84
11	113	115	103	86	88	184	287	249	149	127	132	82
12	113	115	101	84	100	240	268	233	142	128	120	82
13	113	116	100	82	205	649	255	222	137	126	103	86
14	111	116	100	80	183	365	244	212	136	123	113	157
15	113	116	100	78	141	267	233	202	131	118	101	103
16	113	116	100	76	124	217	223	195	125	126	108	126
17	111	115	98	74	120	192	218	192	123	159	105	112
18	113	116	97	72	111	462	212	191	122	130	95	113
19	115	115	95	70	106	487	207	182	119	116	93	109
20	133	113	100	68	103	385	202	176	118	111	91	103
21	133	113	94	66	100	258	196	169	115	110	93	99
22	125	113	116	66	210	319	205	164	115	149	94	98
23	123	111	97	64	600	328	211	163	115	108	92	97
24	165	109	131	64	1100	246	204	165	116	103	95	97
25	155	111	97	62	760	213	205	162	117	105	98	96
26	138	129	92	62	480	192	199	157	118	102	89	97
27	131	121	88	60	436	178	189	154	128	99	88	97
28	127	116	84	60	310	206	233	151	230	96	87	98
29	125	113	90	62	---	211	289	148	170	101	88	99
30	127	136	110	70	---	180	234	146	163	99	90	100
31	144	---	220	90	---	162	---	146	---	99	88	---
TOTAL	3782	3539	3297	2784	6215	9048	11973	7575	4154	3997	3050	2916
MEAN	122	118	106	89.8	222	292	399	244	138	129	98.4	97.2
MAX	165	136	220	260	1100	670	2250	690	230	290	132	157
MIN	110	109	84	60	84	162	151	146	115	96	87	82

CAL YR 1976 TOTAL 86069 MEAN 235 MAX 2450 MIN 84
WTR YR 1977 TOTAL 62330 MEAN 171 MAX 2250 MIN 60

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03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
02...	1030	203	730	8.0	3.5	11.6	87	.7	400	110	99	37
JUN												
23...	1220	113	730	8.2	15.5	13.6	140	.6	380	74	93	37

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
02...	7.5	2.3	358	0	294	5.7	63	18	.2	8.8	432	3.2
JUN												
23...	9.6	1.9	373	0	306	3.8	62	19	.2	8.0	414	2.7

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
02...	.02	.07	.05	1	20	27	10	5	50	.0	20	2.6
JUN												
23...	.02	.02	.05	2	10	6	10	0	0	.0	30	6.1

03268090 CLARENCE J. BROWN RESERVOIR NEAR SPRINGFIELD, OH

LOCATION.--Lat 39°57'01", long 83°44'51", in SE 1/4 sec. 13, R.10, T.5, Clark County, Hydrologic Unit 05080001, in gatehouse of dam on Buck Creek, 1.3 mi (2.1 km) upstream from Beaver Creek, and 4.0 mi (6.4 km) northeast of city hall in Springfield.

DRAINAGE AREA.--82.0 mi^2 (212 km^2).

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by rolled rock-fill dam having an impervious core with sand and gravel shell, and an open cut spillway. Storage began in January 1974, recorder was installed and records began April 16, 1974. Usable capacity 63,690 acre-ft (78.5 hm^3) between elevations 968.0 ft (295.05 m), lowest outlet, and 1,023.0 ft (311.81 m), crest of spillway. Dead storage below elevation 968.0 ft (295.05 m) 6 acre-ft (7,400 m^3). Figures given herein represent usable contents. Reservoir is used for flood control, low-flow augmentation and recreation. There are no gates on spillway and all regulation is done by gates in conduit through dam.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 42,630 acre-ft (52.6 hm^3) Feb. 28, 1975, elevation, 1,014.60 ft (309.250 m); minimum, 12,990 acre-ft (16.0 hm^3) May 7, 1974, elevation, 997.73 ft (304.108 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,890 acre-ft (46.7 hm^3) July 19, elevation, 1,012.45 ft (308.595 m); minimum, 26,750 acre-ft (33.0 hm^3) Jan. 13, elevation, 1,006.81 ft (306.876 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1011.48	35840	-
Oct. 31	1010.52	33860	-1980
Nov. 30	1009.13	31100	-2760
Dec. 31	1008.69	30250	-850
CAL YR 1976	-	-	+8170
Jan. 31	1006.85	26820	-3430
Feb. 28	1008.27	29450	+2630
Mar. 31	1010.27	33360	+3910
Apr. 30	1012.10	37140	+3780
May 31	1012.11	37160	+20
June 30	1012.38	37740	+580
July 31	1011.75	36400	-1340
Aug. 31	1011.17	35190	-1210
Sept. 30	1010.89	34610	-580
WTR YR 1977			-1230

03269500 MAD RIVER NEAR SPRINGFIELD, OH

LOCATION.--Lat 39°55'23", long 83°52'13", in NW 1/4 sec. 16, R.9, T.4, Clark County, Hydrologic Unit 05080001, on right bank 150 ft (46 m) downstream from Rock Run, 300 ft (91 m) downstream from bridge on Lower Valley Pike, 2 mi (3 km) downstream from Buck Creek, and 3 mi (5 km) west of Springfield.

DRAINAGE AREA.--490 mi^2 (1,269 km^2).

PERIOD OF RECORD.--January 1904 to March 1906 (fragmentary), February 1914 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 603: 1924. WSP 823: 1929(M). WSP 1305: 1914(M), 1916-17(M), 1922-23(M), 1925(M). WSP 1625: 1924(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 881.42 ft (268.657 m) above mean sea level, adjustment of 1912. Jan. 1, 1904 to Mar. 31, 1906, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum. Feb. 1, 1914, to Feb. 29, 1924, nonrecording gage at site 1.8 mi (2.9 km) upstream at datum 6.39 ft (1.948 m) higher. Mar.1, 1924, to July 31, 1925, nonrecording gage at site 300 ft (91 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by C.J. Brown Reservoir, 8.3 mi (13.4 km) upstream on Buck Creek, since 1972. Occasional low-flow regulation by powerplant 2.3 mi (3.7 km) upstream; daily flows are not affected appreciably. Water-quality data collected at this site 1965 to 1973.

COOPERATION.--Gage-height charts, tapes and 8 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--64 years, (1904-05, 1914-77), 481 ft^3/s (13.62 m^3/s), 13.33 in/yr (339 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,500 ft^3/s (864 m^3/s) Jan. 21, 1959, gage height, 15.76 ft (4,804 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area and contracted opening measurements of peak flow; minimum daily discharge, 30 ft^3/s (0.85 m^3/s) Sept. 15, 1904.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25,1913 reached a stage of 16.9 ft (5.15 m), present datum, discharge, 55,400 ft^3/s (1,570 m^3/s) computed by Miami Conservacy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,840 ft^3/s (165 m^3/s) Apr. 2, gage height, 8.62 ft (2.627 m); minimum daily, 100 ft^3/s (2.832 m^3/s) Jan. 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	279	241	270	130	367	275	317	217	406	315	168
2	237	270	221	300	150	324	2430	314	217	230	256	165
3	233	266	206	340	150	337	2190	332	217	205	247	174
4	233	262	198	350	140	822	1010	885	209	201	252	159
5	229	262	187	350	130	761	982	927	230	193	261	159
6	209	258	202	345	130	498	677	734	209	189	305	172
7	241	253	217	345	130	411	535	697	205	197	477	165
8	245	253	198	325	130	361	453	606	209	225	356	162
9	279	253	194	340	130	334	398	540	261	189	275	165
10	249	253	198	311	150	313	369	441	217	181	221	199
11	249	249	198	256	180	295	350	406	225	181	270	194
12	245	249	191	170	250	415	334	367	213	185	480	195
13	245	245	191	150	365	752	332	356	213	193	280	202
14	241	245	191	140	355	498	316	335	230	181	230	503
15	213	249	191	130	284	401	308	315	205	197	200	166
16	209	229	191	120	210	347	294	305	197	181	190	254
17	206	245	191	120	190	317	289	300	197	252	210	178
18	209	245	187	120	180	563	288	300	193	193	180	162
19	209	245	187	110	170	516	277	290	193	178	170	174
20	258	245	209	110	160	446	280	280	201	295	180	158
21	229	241	220	110	160	392	272	270	189	252	200	148
22	213	245	190	110	260	493	311	261	189	270	220	144
23	225	241	170	110	892	470	311	256	189	174	200	141
24	335	245	150	110	1330	386	314	252	189	161	197	137
25	270	241	170	110	866	349	304	243	185	178	169	134
26	262	293	160	100	600	323	294	238	181	230	141	135
27	270	262	150	100	531	306	280	234	213	230	168	131
28	266	253	140	100	437	367	378	225	290	234	164	129
29	262	249	130	100	---	348	384	221	238	275	169	161
30	284	237	150	100	---	312	345	217	243	290	173	162
31	311	---	200	110	---	289	---	221	---	295	170	---
TOTAL	7611	7562	5819	5864	8790	13115	15580	11685	6364	6841	7326	5296
MEAN	246	252	188	189	314	423	519	377	212	221	236	177
MAX	335	293	241	350	1330	822	2430	927	290	406	480	503
MIN	206	229	130	100	130	289	272	217	181	161	141	129
CFSM	.50	.51	.38	.39	.64	.86	1.06	.77	.43	.45	.48	.36
IN.	.58	.57	.44	.45	.67	1.00	1.18	.89	.48	.52	.56	.40

CAL YR 1976 TOTAL 138424 MEAN 378 MAX 3220 MIN 130 CFSM .77 IN 10.51
WTR YR 1977 TOTAL 101853 MEAN 279 MAX 2430 MIN 100 CFSM .57 IN 7.73

03270000 MAD RIVER NEAR DAYTON, OH

LOCATION.--Lat 39°47'50". long 84°05'19", in SW 1/4 sec. 7, R. 8, T.2, Green County, Hydrologic Unit 05080001, on left bank in retarding basin 300 ft (91 m) upstream from Huffman Dam, 2.3 mi (3.7 km) downstream from Mud Run, and 6.2 mi (10.0 km) northeast of Dayton. Water-quality sampling site on left bank 900 ft (274 m) downstream.

DRAINAGE AREA.--635 mi^2 (1,645 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 453: 1915. WSP 743: 1929-32. WSP 1305: 1916(M), 1925(M) 1930-32(M). drainage area.

GAGE.--Water-stage recorder. Datum of gage is 777.06 ft (236.848 m) above mean sea level. Jan. 21, 1959 to Dec. 14, 1967, at site 900 ft (274 m) downstream, at datum 77.01 ft (23.473 m) lower. See WSP 1725 for history of changes prior to Jan. 21, 1959.

REMARKS.--Records good except those for winter periods, which are fair. Flood flows affected by backwater from Huffman retarding dam beginning in 1921, some regulation by C.J. Brown Reservoir 26 mi (48.8 km) upstream on Buck Creek since 1972. Also see REMARKS for station 03269500.

COOPERATION.--Gage-height charts, tapes and 10 discharge measurements furnished by Mami Conservancy District.

AVERAGE DISCHARGE.--63 years, 617 ft^3/s (17.47 m^3/s), 13.20 in/yr (335 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft^3/s (600 m^3/s) Jan. 22, 1959 (based on Huffman retarding basin outflow records); maximum gage height, 87.9 ft (26.79 m) Feb. 26, 1929 at site and datum then in use; minimum daily discharge, 94 ft^3/s (2.66 m^3/s) Aug. 6, 1934, but may have been less during period 1921-24.

EXTREMES FOR PERIOD OF RECORD.--Flood of March 25, 1913 reached a stage of 14.0 ft (4.27 m), original site and datum, discharge 75,700 ft^3/s (2,140 m^3/s), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,420 ft^3/s (153 m^3/s) Apr. 3, gage height, 11.61 ft (3.539 m); minimum daily, 150 ft^3/s (4.25 m^3/s) Jan. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	320	305	360	170	501	348	482	268	503	324	203
2	278	312	278	380	170	431	2950	451	263	313	277	195
3	272	309	253	370	170	425	3130	442	260	254	261	210
4	268	303	260	360	170	940	1640	567	255	235	257	174
5	268	303	239	350	160	1080	1490	1330	253	223	261	188
6	257	297	238	350	160	710	1040	1120	283	218	267	193
7	261	291	276	350	160	577	836	935	260	215	483	190
8	265	287	249	350	160	496	705	872	260	255	411	177
9	293	287	239	340	170	448	617	715	304	219	346	167
10	290	289	234	320	180	416	560	624	292	209	254	214
11	276	289	239	290	245	389	520	514	270	206	328	239
12	275	289	235	260	309	494	479	444	272	208	605	242
13	271	286	231	230	426	928	484	421	263	210	285	258
14	265	282	228	210	445	718	470	398	284	206	268	803
15	253	282	226	200	360	569	450	379	269	201	240	230
16	241	284	226	190	282	488	432	370	255	215	233	285
17	236	268	226	180	237	433	415	363	249	279	268	245
18	235	278	226	180	231	580	411	362	255	235	217	175
19	233	282	226	180	221	695	401	354	247	201	285	329
20	263	282	231	170	218	583	389	344	238	224	208	228
21	281	282	255	170	208	517	398	333	248	357	230	202
22	248	282	250	170	255	601	402	322	235	299	254	187
23	242	281	230	170	954	615	452	319	237	225	242	180
24	380	282	220	160	1820	524	425	314	236	188	310	169
25	323	288	220	160	1250	457	437	307	253	181	251	160
26	294	356	210	160	825	418	411	297	231	215	204	155
27	289	348	200	150	696	391	396	288	219	237	201	153
28	288	319	200	150	612	457	381	281	299	235	216	147
29	285	309	190	160	---	443	619	275	295	280	205	162
30	292	288	180	160	---	389	543	271	272	295	197	190
31	370	---	300	170	---	362	---	270	---	285	199	---
TOTAL	8582	8855	7320	7400	11264	17075	22231	14764	7825	7626	8587	6650
MEAN	277	295	236	239	402	551	741	476	261	246	274	222
MAX	380	356	305	380	1820	1080	3130	1330	304	503	605	803
MIN	233	268	180	150	160	362	348	270	219	181	197	147
CFSM	.44	.47	.37	.38	.63	.87	1.17	.75	.41	.39	.43	.35
IN.	.50	.52	.43	.43	.66	1.00	1.30	.86	.46	.45	.50	.39

CAL YR 1976 TOTAL 177927 MEAN 486 MAX 3760 MIN 180 CFSM .77 IN 10.42
WTR YR 1977 TOTAL 128099 MEAN 351 MAX 3130 MIN 147 CFSM .55 IN 7.50

03270000 MAD RIVER NEAR DAYTON, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-48, 1962-63, July 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to current year.
pH: June 1968 to current year.
WATER TEMPERATURES: June 1968 to current year.
DISSOLVED OXYGEN: June 1968 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1968.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,000 micromhos Sept. 13, 14, 1974; minimum, 165 micromhos June 26, 1971.
pH: Maximum, 10.1 units July 21, 1973; minimum, 4.4 units Apr. 8, 1971.
WATER TEMPERATURES: Maximum, 32.5°C July 15, 1977; minimum, 0.0°C on several days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on many days during 1970-77; minimum, 3.2 mg/L July 9, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 909 micromhos Dec. 6; minimum, 306 micromhos Apr. 3.
pH: Maximum, 9.4 units Sept. 5; minimum, 7.0 units Dec. 6.
WATER TEMPERATURES: Maximum, 32.5°C July 15; minimum, 0.0°C Jan. 10.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher Oct. 28, 29, Nov. 1, Apr. 1; minimum, 3.2 mg/L July 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR												
24...	1145	492	640	7.9	8.0	11.8	99	1.6	350	93	83	34
JUN												
15...	1130	269	760	7.6	20.5	5.8	64	2.4	350	95	83	35

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR												
24...	16	2.8	310	0	254	6.2	68	32	.2	4.5	393	3.1
JUN												
15...	19	3.0	312	0	256	13	72	33	.2	7.5	407	2.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR												
24...	.05	.24	.24	1	20	4	20	5	30	.0	40	--
JUN												
15...	.18	.19	.57	2	10	7	20	0	50	.2	20	5.9

03270000 MAD RIVER NEAR DAYTON, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	663	651	639	603	753	723	731	698	---	---	737	704
2	684	654	666	639	747	720	---	---	---	---	758	728
3	678	660	675	654	780	747	---	---	---	---	887	680
4	678	660	672	657	786	759	707	698	---	---	743	623
5	684	657	666	651	792	756	722	689	---	---	638	614
6	699	651	669	648	909	765	803	707	---	---	692	641
7	681	657	666	651	882	759	794	710	---	---	728	695
8	675	648	657	642	858	777	728	710	---	---	752	722
9	675	648	663	642	786	756	716	692	---	---	767	740
10	648	603	660	648	777	750	695	686	---	---	761	746
11	657	624	660	648	885	771	716	698	---	---	761	749
12	672	648	666	645	801	783	722	704	---	---	791	668
13	669	654	660	642	798	750	770	725	---	---	701	620
14	669	651	657	639	771	744	758	737	---	---	686	641
15	672	651	648	636	771	753	746	719	---	---	731	689
16	681	657	660	633	765	741	773	740	---	---	743	728
17	681	657	683	659	762	732	---	---	---	---	740	731
18	678	651	684	669	762	735	---	---	---	---	758	642
19	---	---	686	677	762	735	---	---	---	---	665	617
20	690	672	687	675	759	735	---	---	---	---	692	644
21	681	627	692	674	747	723	---	---	---	---	713	680
22	669	624	688	673	741	723	---	---	---	---	734	677
23	702	666	701	677	744	717	---	---	---	---	695	668
24	684	567	724	685	762	741	---	---	---	---	704	689
25	609	567	729	705	762	744	---	---	---	---	719	704
26	678	612	862	694	762	738	---	---	---	---	725	713
27	675	666	717	684	765	729	---	---	---	---	731	713
28	672	654	727	694	762	746	---	---	701	695	743	701
29	672	660	720	705	767	752	---	---	---	---	719	695
30	666	636	768	702	767	731	---	---	---	---	734	695
31	645	612	---	---	746	704	---	---	---	---	729	705
MONTH	702	567	862	603	909	704	803	686	701	695	887	614

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	732	717	711	693	747	726	705	561	666	630	723	687
2	771	327	717	702	750	729	669	543	639	603	720	681
3	528	306	717	681	762	732	741	672	687	645	732	681
4	630	537	714	525	771	735	756	726	690	666	717	657
5	636	582	639	528	768	738	762	726	687	663	711	465
6	678	630	681	642	753	726	759	720	681	651	711	672
7	720	681	696	633	738	699	768	729	663	498	702	672
8	729	714	705	687	786	732	756	717	528	408	714	684
9	741	726	708	693	756	714	744	681	618	543	723	687
10	756	738	726	702	741	699	741	693	687	579	741	681
11	765	744	735	720	732	702	747	705	699	423	705	657
12	762	747	744	720	735	726	756	726	636	384	681	651
13	759	747	750	732	750	726	762	723	681	522	684	585
14	753	741	747	729	744	729	762	726	732	681	594	375
15	747	735	744	720	741	693	762	714	732	693	627	447
16	753	732	741	726	753	720	777	717	750	705	696	528
17	747	732	741	732	759	732	753	582	741	720	675	606
18	741	726	744	732	759	675	702	642	738	663	711	615
19	738	726	747	735	750	720	726	663	735	693	720	426
20	759	726	744	717	750	720	744	714	753	720	723	702
21	735	723	741	705	747	714	756	450	753	708	783	711
22	750	711	741	717	747	714	693	546	726	678	795	774
23	720	693	741	726	741	711	678	630	702	663	804	780
24	720	702	741	723	753	729	732	681	723	666	804	774
25	720	675	747	729	753	600	744	711	678	558	801	762
26	723	684	750	732	744	666	744	699	717	636	798	774
27	729	711	759	741	747	711	732	684	744	702	801	768
28	732	570	756	738	744	696	705	675	747	702	807	771
29	684	582	756	732	684	654	705	585	720	678	795	774
30	702	657	750	723	726	636	681	651	714	672	798	762
31	---	---	750	735	---	---	675	645	720	681	---	---
MONTH	771	306	759	525	786	600	777	450	753	384	807	375
YEAR	909	306										

03270000 MAD RIVER NEAR DAYTON, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.9	7.6	8.1	7.5	8.1	7.6	7.9	7.7	---	---	7.8	7.6
2	8.0	7.6	8.1	7.6	8.0	7.6	---	---	---	---	7.9	7.6
3	8.0	7.6	8.1	7.7	7.6	7.3	---	---	---	---	7.8	7.6
4	8.1	7.6	8.0	7.6	7.3	7.2	7.6	7.4	---	---	7.7	7.6
5	8.3	7.6	8.1	7.6	7.4	7.1	7.7	7.2	---	---	7.6	7.6
6	7.9	7.7	8.2	7.7	7.4	7.0	7.9	7.4	---	---	7.8	7.6
7	7.8	7.6	8.1	7.7	7.7	7.4	7.9	7.4	---	---	7.9	7.7
8	8.0	7.6	8.1	7.6	7.6	7.3	7.8	7.6	---	---	7.9	7.7
9	7.9	7.7	8.3	7.7	7.5	7.2	7.8	7.5	---	---	8.0	7.7
10	7.9	7.6	8.3	7.7	7.6	7.2	7.9	7.5	---	---	8.0	7.7
11	8.2	7.7	8.1	7.6	7.6	7.2	7.8	7.7	---	---	8.1	7.7
12	8.1	7.7	8.2	7.6	7.5	7.2	7.7	7.6	---	---	7.9	7.7
13	8.3	7.7	8.2	7.6	7.6	7.2	7.6	7.4	---	---	7.8	7.6
14	8.1	7.8	8.2	7.6	7.7	7.2	7.5	7.1	---	---	8.0	7.7
15	8.1	7.7	8.2	7.6	7.8	7.1	7.5	7.1	---	---	8.1	7.7
16	8.1	7.7	8.5	7.6	7.8	7.5	7.8	7.4	---	---	8.2	7.7
17	8.0	7.7	8.2	7.5	8.1	7.6	---	---	---	---	8.0	7.7
18	7.8	7.7	8.4	7.6	8.1	7.6	---	---	---	---	7.9	7.7
19	---	---	8.2	7.6	8.1	7.7	---	---	---	---	8.0	7.7
20	7.9	7.7	8.2	7.6	8.1	7.7	---	---	---	---	8.0	7.7
21	8.2	7.6	8.1	7.6	8.1	7.5	---	---	---	---	8.6	7.8
22	8.2	7.6	8.1	7.5	8.0	7.7	---	---	---	---	8.3	7.9
23	7.8	7.6	8.2	7.5	8.2	7.6	---	---	---	---	8.5	7.8
24	7.7	7.5	7.9	7.5	7.8	7.5	---	---	---	---	8.4	7.8
25	8.2	7.4	8.1	7.2	7.7	7.5	---	---	---	---	8.4	7.8
26	8.1	7.6	7.9	7.6	7.8	7.5	---	---	---	---	8.5	7.7
27	8.0	7.6	7.7	7.4	8.0	7.4	---	---	---	---	8.4	7.7
28	8.5	7.6	7.8	7.5	8.1	7.6	---	---	7.7	7.6	8.3	7.8
29	8.3	7.7	8.0	7.5	8.0	7.6	---	---	---	---	8.5	7.7
30	7.9	7.7	7.9	7.6	8.0	7.7	---	---	---	---	8.5	7.8
31	7.7	7.5	---	---	8.0	7.7	---	---	---	---	8.3	7.7
MONTH	8.5	7.4	8.5	7.2	8.2	7.0	7.9	7.1	7.7	7.6	8.6	7.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.6	7.7	8.5	7.9	8.5	8.0	7.9	7.6	8.2	7.8	8.4	7.8
2	8.1	7.4	8.5	7.9	8.6	8.0	8.0	7.6	8.4	7.8	8.4	7.8
3	7.8	7.6	8.3	7.9	8.6	8.0	8.2	7.7	8.4	7.8	8.4	7.9
4	7.8	7.8	8.1	7.8	8.6	7.9	8.3	7.8	8.4	7.8	8.4	7.9
5	8.0	7.8	8.0	7.8	8.4	8.0	8.3	7.9	8.4	7.8	9.4	7.9
6	8.0	7.8	8.3	7.9	8.4	8.0	8.4	7.9	8.3	7.8	8.3	7.9
7	8.0	7.8	8.1	7.9	8.6	7.9	8.4	7.9	8.0	7.7	8.4	7.9
8	8.1	7.8	8.2	8.0	8.5	8.0	8.3	7.7	7.9	7.5	8.4	7.9
9	8.1	7.9	8.2	8.0	8.6	8.0	8.3	7.7	8.1	7.8	8.5	7.9
10	8.2	7.9	8.3	8.0	8.6	7.9	8.2	7.8	8.2	7.7	8.4	7.9
11	8.2	7.8	8.3	8.0	8.4	8.0	8.2	7.9	8.3	7.8	8.4	7.9
12	8.2	7.8	8.4	7.9	8.6	8.0	8.2	7.7	7.9	7.6	8.3	7.9
13	8.2	7.8	8.4	7.9	8.6	8.0	8.3	7.7	8.0	7.7	8.4	7.9
14	8.2	7.9	8.5	8.0	8.5	8.0	8.3	7.7	8.2	7.8	8.0	7.6
15	8.2	7.9	8.5	7.9	8.7	8.0	8.4	7.7	8.3	7.8	8.0	7.7
16	8.3	7.9	8.5	8.0	8.6	8.0	8.3	7.7	8.2	7.9	8.1	7.8
17	8.2	7.9	8.5	7.9	8.6	8.0	8.2	7.7	8.3	7.8	8.1	7.8
18	8.3	7.9	8.5	7.9	8.5	8.0	8.2	7.6	8.3	7.8	8.1	7.8
19	8.2	7.8	8.4	8.0	8.5	8.0	8.4	7.6	8.3	7.8	8.1	7.9
20	8.3	7.9	8.5	7.9	8.6	8.0	8.3	7.7	8.4	7.9	8.1	7.9
21	8.2	7.9	8.5	7.9	8.7	8.1	8.3	7.6	8.2	7.9	8.2	7.9
22	8.1	7.8	8.5	8.0	8.4	8.0	8.2	7.5	8.4	7.9	8.2	7.9
23	8.1	7.8	8.4	8.0	8.7	8.0	8.3	7.7	8.4	7.8	8.3	7.9
24	8.3	7.9	8.5	7.9	8.5	8.0	8.4	7.7	8.1	7.8	8.1	7.9
25	8.2	7.9	8.5	8.0	8.6	8.0	8.4	7.8	8.4	7.7	8.3	7.9
26	8.3	7.9	8.6	7.9	8.7	8.0	8.4	7.8	8.4	7.8	8.4	7.9
27	8.4	7.9	8.6	7.9	8.6	8.0	8.4	7.8	8.4	7.8	8.3	7.9
28	8.1	7.9	8.6	8.0	8.5	8.0	8.4	7.8	8.4	7.9	8.4	7.9
29	8.2	7.8	8.5	8.0	8.6	8.0	8.0	7.8	8.3	7.8	8.4	7.9
30	8.4	7.9	8.6	7.9	8.2	7.7	8.3	7.8	8.3	7.9	8.4	7.9
31	---	---	8.6	8.0	---	---	8.3	7.8	8.4	7.8	---	---
MONTH	8.6	7.4	8.6	7.8	8.7	7.7	8.4	7.5	8.4	7.5	9.4	7.6
YEAR	9.4	7.0										

03270000 MAD RIVER NEAR DAYTON, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	14.5	10.0	6.5	5.5	3.5	2.5	0.5	---	---	9.0	4.5
2	20.0	15.0	10.0	7.0	5.0	1.5	---	---	---	---	8.5	4.0
3	19.5	16.0	10.0	8.0	3.5	1.0	---	---	---	---	10.0	6.0
4	19.5	15.5	8.0	7.0	4.5	3.0	2.5	1.0	---	---	10.5	9.0
5	20.0	16.5	7.0	6.0	4.0	2.0	3.5	1.0	---	---	9.5	7.0
6	19.0	16.0	8.0	5.0	4.5	3.0	2.0	0.5	---	---	10.0	4.5
7	16.0	14.5	7.5	6.0	3.5	3.0	2.0	0.5	---	---	9.5	5.0
8	16.5	13.5	6.0	4.5	4.0	2.0	1.5	0.5	---	---	12.0	5.0
9	14.5	13.0	7.5	4.5	5.0	2.0	1.0	0.5	---	---	13.5	8.0
10	14.5	11.5	7.0	5.5	6.0	3.5	1.0	0.0	---	---	14.5	9.5
11	15.0	11.0	6.5	5.5	6.5	4.0	2.0	1.0	---	---	15.5	10.0
12	16.5	11.5	7.0	5.0	6.0	5.0	2.0	1.5	---	---	13.5	12.5
13	17.5	14.5	6.5	3.5	5.0	3.5	1.5	1.0	---	---	13.0	10.0
14	16.0	12.5	5.5	3.5	4.5	2.5	1.5	0.5	---	---	12.5	9.5
15	15.5	12.0	6.0	3.5	5.0	3.5	0.5	0.5	---	---	16.0	9.5
16	14.0	11.5	6.0	3.0	5.5	3.0	1.5	0.5	---	---	14.5	10.5
17	12.5	11.0	4.5	1.5	7.0	4.0	---	---	---	---	12.0	9.5
18	10.5	8.5	5.0	3.0	7.0	4.0	---	---	---	---	10.5	8.0
19	---	---	6.0	4.5	8.5	6.0	---	---	---	---	11.0	8.0
20	10.5	10.5	6.5	3.5	8.5	5.5	---	---	---	---	9.0	7.5
21	11.0	8.5	5.5	3.5	5.5	2.0	---	---	---	---	12.5	6.5
22	10.0	7.0	5.0	2.5	3.0	1.0	---	---	---	---	12.0	9.0
23	9.0	7.5	5.0	2.0	3.0	1.5	---	---	---	---	12.0	7.5
24	11.0	8.5	5.0	2.0	1.5	1.0	---	---	---	---	10.0	7.0
25	10.5	10.0	6.5	4.5	2.0	1.0	---	---	---	---	12.0	6.0
26	10.5	8.5	9.5	6.5	2.5	1.0	---	---	---	---	14.5	7.0
27	9.5	7.0	11.0	9.0	2.0	1.0	---	---	---	---	13.0	9.0
28	8.5	5.5	9.0	5.5	3.5	1.5	---	---	7.0	5.0	13.5	10.5
29	8.5	5.5	5.5	3.0	3.0	0.5	---	---	---	---	17.5	11.5
30	8.0	7.0	3.5	2.0	2.5	0.5	---	---	---	---	19.0	14.0
31	9.0	8.0	---	---	1.5	0.5	---	---	---	---	15.0	11.0
MONTH	20.0	5.5	11.0	1.5	8.5	0.5	3.5	0.0	7.0	5.0	19.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	9.0	19.0	13.5	25.0	20.0	26.0	21.0	26.5	23.0	28.5	24.5
2	15.0	12.0	20.5	15.5	24.0	19.0	26.0	20.0	27.5	19.5	29.5	25.5
3	15.0	11.5	19.5	16.5	25.5	17.5	25.5	20.0	27.5	22.5	28.0	25.0
4	11.5	10.5	19.0	16.5	25.5	19.0	27.5	21.5	27.5	23.5	27.5	21.5
5	12.0	9.5	20.0	16.5	23.5	20.5	29.5	24.5	28.5	25.0	27.0	24.5
6	9.5	8.5	19.5	18.0	22.0	19.0	31.0	25.0	29.0	26.0	25.5	24.0
7	12.5	8.0	20.0	16.5	22.0	16.0	30.5	26.0	27.5	24.0	27.0	22.5
8	14.0	10.0	19.0	15.0	19.5	16.0	30.5	25.0	25.5	23.5	26.5	20.5
9	14.0	9.0	18.0	13.5	22.0	16.0	29.5	25.5	26.5	22.5	27.0	23.0
10	17.0	10.5	19.5	12.5	22.5	16.5	27.0	23.0	27.0	24.0	25.5	21.0
11	19.5	13.5	21.0	14.0	21.0	19.0	25.0	21.0	27.5	24.5	24.0	18.0
12	19.5	14.0	21.0	15.0	23.0	18.5	26.5	22.0	25.0	23.5	21.5	17.5
13	19.5	14.0	22.5	15.5	23.0	19.0	29.0	23.5	24.5	22.5	23.0	18.5
14	18.0	14.0	23.0	17.0	23.0	20.5	31.5	25.0	27.0	22.5	23.0	21.0
15	18.5	13.5	24.0	16.5	26.0	20.0	32.5	27.0	27.0	24.0	21.5	19.5
16	19.5	13.0	24.0	17.0	25.5	21.0	30.5	28.5	27.5	24.0	22.0	20.5
17	18.0	14.0	24.0	18.0	27.0	23.0	31.0	24.0	27.5	24.5	24.5	20.5
18	18.5	14.0	26.0	19.5	25.5	23.5	30.5	25.5	26.5	21.5	24.5	22.0
19	18.0	15.5	28.0	20.5	24.5	21.5	32.0	26.5	24.5	19.5	23.5	21.5
20	19.0	15.0	28.5	21.0	25.5	22.0	31.5	27.5	24.5	18.5	22.0	20.0
21	18.0	15.5	28.5	21.5	25.5	20.0	30.5	26.5	22.5	20.5	19.5	18.0
22	17.0	16.0	26.0	22.5	23.5	19.5	29.5	23.0	25.0	20.0	21.0	15.5
23	16.0	14.0	24.5	20.5	23.5	18.0	29.0	21.0	24.5	20.5	22.0	18.5
24	17.0	13.0	25.5	20.0	24.0	21.0	28.5	21.0	23.0	22.0	22.0	20.5
25	14.5	12.5	25.0	20.5	25.5	22.0	29.0	24.5	25.0	18.0	22.5	20.0
26	15.5	12.0	27.5	20.0	28.0	22.0	26.5	20.0	26.0	19.5	23.5	20.5
27	18.0	11.5	28.0	20.5	26.0	23.0	27.0	19.5	27.5	23.0	23.0	19.5
28	16.0	13.0	27.5	21.0	26.0	23.5	27.0	19.5	28.5	24.0	21.5	17.5
29	15.5	11.0	26.5	22.5	26.5	22.5	25.5	22.5	26.0	25.0	21.0	15.5
30	18.0	11.5	28.0	20.5	25.5	21.0	28.0	20.5	27.5	24.0	22.0	16.5
31	---	---	27.5	22.5	---	---	27.5	24.0	28.0	23.5	---	---
MONTH	19.5	8.0	28.5	12.5	28.0	16.0	32.5	19.5	29.0	18.0	29.5	15.5
YEAR	32.5	0.0										

03270000 MAD RIVER NEAR DAYTON, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.2	7.1	15.0	9.7	11.2	9.5	11.6	10.1	---	---	10.7	9.5
2	10.6	7.1	14.3	9.1	11.9	9.2	---	---	---	---	10.3	9.3
3	10.6	6.9	12.2	8.0	11.7	9.3	---	---	---	---	9.5	8.7
4	11.2	6.9	12.1	8.3	10.4	8.9	10.8	9.6	---	---	9.3	8.1
5	10.6	6.9	12.3	8.8	11.9	8.9	11.2	9.1	---	---	11.2	8.8
6	8.0	6.3	13.5	9.0	10.9	9.0	11.3	9.5	---	---	12.0	11.0
7	8.8	7.1	13.6	8.7	10.7	8.6	11.7	9.3	---	---	11.8	10.8
8	11.1	7.4	14.0	9.1	11.6	8.0	11.7	10.0	---	---	11.9	10.4
9	10.7	8.0	13.5	9.3	11.8	9.1	11.3	9.7	---	---	11.2	9.5
10	11.4	8.3	13.1	8.5	10.7	8.6	11.7	9.9	---	---	11.2	9.0
11	11.9	8.6	12.9	8.5	11.0	7.9	11.4	10.2	---	---	11.6	8.7
12	11.3	8.3	14.2	8.8	10.0	7.3	11.3	9.8	---	---	9.0	7.9
13	11.2	7.3	14.6	9.3	11.4	7.7	11.0	9.7	---	---	9.5	7.6
14	11.6	7.4	14.7	9.5	11.6	8.4	9.9	8.9	---	---	10.9	9.5
15	11.2	7.8	14.6	9.4	11.7	8.3	10.4	8.4	---	---	11.4	9.1
16	12.3	7.4	14.2	9.3	10.2	8.0	11.3	8.9	---	---	11.7	8.5
17	12.5	8.0	13.5	8.5	11.9	7.9	---	---	---	---	11.3	8.9
18	11.5	9.2	13.3	8.2	12.2	8.3	---	---	---	---	10.1	9.2
19	---	---	12.1	7.4	11.8	8.4	---	---	---	---	12.4	9.9
20	11.1	9.4	11.7	7.0	9.8	7.6	---	---	---	---	12.0	10.4
21	13.2	9.6	10.4	7.1	11.7	8.5	---	---	---	---	13.8	10.7
22	14.8	10.1	10.2	6.5	12.2	9.3	---	---	---	---	12.4	9.7
23	13.6	10.6	---	---	11.7	9.5	---	---	---	---	13.6	10.0
24	11.7	9.3	---	---	11.6	9.5	---	---	---	---	14.4	10.4
25	11.7	9.3	---	---	10.3	9.0	---	---	---	---	14.7	10.0
26	13.7	10.1	---	---	10.8	8.6	---	---	---	---	14.9	9.4
27	14.7	10.2	---	---	11.4	8.8	---	---	---	---	14.0	8.7
28	15.0	11.7	---	---	10.6	8.9	---	---	12.5	10.5	12.0	8.0
29	15.0	11.6	12.0	10.2	12.1	8.7	---	---	---	---	14.4	7.4
30	12.8	10.8	12.3	9.8	11.4	9.8	---	---	---	---	13.2	6.9
31	11.7	9.6	---	---	12.0	9.7	---	---	---	---	12.6	7.2
MONTH	15.0	6.3	15.0	6.5	12.2	7.3	11.7	8.4	12.5	10.5	14.9	6.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	8.1	12.7	7.9	10.2	4.9	6.4	4.5	7.0	4.4	11.5	5.3
2	8.6	7.0	12.5	6.9	11.1	5.1	8.1	4.8	8.3	4.8	11.6	5.2
3	9.3	8.0	10.3	6.6	11.8	5.2	9.6	4.8	7.8	4.3	11.1	5.5
4	9.4	9.0	7.4	6.9	11.7	5.0	9.8	5.0	8.6	4.1	11.7	6.2
5	10.2	9.1	8.1	6.9	9.5	4.8	9.7	4.4	7.6	4.4	10.1	5.8
6	11.0	10.2	7.9	6.7	9.9	5.2	9.8	3.9	7.1	4.0	10.6	5.9
7	11.0	9.9	8.9	7.1	11.8	5.1	9.4	3.5	5.4	3.7	11.4	6.7
8	10.7	9.7	9.4	7.6	11.3	5.5	9.2	3.4	6.3	3.5	11.3	6.6
9	11.0	9.6	10.1	7.9	12.0	5.6	9.3	3.2	6.1	4.4	11.7	6.3
10	10.9	8.8	10.5	8.2	12.4	5.3	8.7	4.1	8.3	4.2	11.4	6.3
11	10.9	7.9	10.8	7.9	10.6	5.1	10.0	4.8	8.6	5.0	11.8	7.2
12	10.4	7.6	11.2	7.5	12.5	5.5	9.6	4.8	5.8	4.7	11.5	7.6
13	10.3	7.4	11.4	7.2	12.3	5.4	9.8	4.7	7.5	5.9	10.0	7.5
14	10.1	7.3	11.7	6.6	10.8	4.9	10.1	4.7	8.7	5.9	7.4	6.1
15	10.8	7.5	12.3	6.3	12.6	4.9	10.0	4.3	8.7	5.1	8.5	6.5
16	11.0	7.7	11.8	6.2	11.8	4.4	9.0	4.1	8.6	5.2	8.1	6.4
17	10.5	7.4	11.1	6.1	11.4	4.2	8.7	4.1	9.7	5.2	8.5	6.3
18	10.9	7.3	10.5	5.6	9.7	4.0	9.3	3.5	10.1	5.3	8.2	5.8
19	9.0	7.0	9.9	5.4	10.4	4.0	9.3	3.7	10.9	6.7	7.5	5.6
20	10.8	7.0	10.2	5.1	10.7	4.4	9.2	4.0	12.2	7.5	8.4	5.9
21	10.0	6.7	10.4	5.1	11.9	4.9	8.0	3.8	10.5	6.8	8.9	6.5
22	8.9	6.5	10.2	5.1	9.6	4.4	8.3	3.5	12.2	7.0	9.7	7.0
23	9.2	6.5	10.6	5.3	12.2	5.6	9.0	4.5	12.0	6.3	9.5	6.5
24	10.7	7.1	10.9	5.3	10.3	5.2	8.9	4.4	9.8	6.4	8.7	6.2
25	10.6	7.5	10.8	5.2	10.6	4.6	7.7	4.1	11.9	6.5	9.4	6.0
26	12.0	8.6	11.2	4.9	11.4	4.2	9.3	4.7	12.2	6.8	9.3	5.9
27	12.3	8.1	11.3	4.9	9.7	4.1	9.5	4.8	12.0	6.1	9.5	6.0
28	8.7	7.4	11.5	5.0	9.8	4.2	9.2	4.5	11.6	5.3	9.7	6.3
29	11.5	7.4	10.8	4.7	10.7	4.1	6.2	4.2	9.6	4.8	10.3	6.8
30	12.5	8.5	11.8	5.0	9.2	4.0	7.8	4.5	10.7	5.8	10.1	6.3
31	---	---	10.9	5.0	---	---	7.9	3.8	11.1	5.9	---	---
MONTH	15.0	6.5	12.7	4.7	12.6	4.0	10.1	3.2	12.2	3.5	11.8	5.2
YEAR	15.0	3.2										

03270500 GREAT MIAMI RIVER AT DAYTON, OH

LOCATION.--Lat 39°45'55", long 84°11'51", in sec. 10, R.7, T.1, Montgomery County, Hydrologic Unit 05080002, on left bank 1,000 ft (305 m) downstream from Main Street Bridge in Dayton, 0.7 mi (1.1 km) upstream from Wolf Creek, and 0.8 mi (1.3 km) downstream from Mad River.

DRAINAGE AREA.--2,511 mi² (6,503 km²).

PERIOD OF RECORD.--April to September 1905, January to September 1906, January 1907 to December 1909 (gage heights only), April 1913 to current year. Monthly discharge only for October 1919 to September 1921, published in WSP 1305. Gage-height records collected at Main Street Bridge since January 1892 are contained in reports of National Weather Service. Prior to October 1962, published as Miami River at Dayton.

REVISED RECORDS.--WSP 1385: 1917. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) above mean sea level, adjustment of 1912. Prior to Oct. 1, 1921 nonrecording gage at Main Street Bridge at datum 23.73 ft (7.233 m) higher. Oct. 1, 1921, to July 24, 1931, nonrecording gage at Main Street Bridge at datum 21.00 ft (6.401 m) higher.

REMARKS.--Records good except those for winter periods and those subsequent to June 17, which are fair. Flood flow regulated by four retarding basins upstream from station beginning in 1920 on Mad River 6.5 mi (10.5 km) upstream, on Stillwater River 10.5 mi (16.9 km) upstream, on Great Miami River 11.5 mi (18.5 km) upstream, and on Loramie Creek 40 mi (64 km) upstream. Also see REMARKS for stations 03261500, 03261950 and 03269500. Water is diverted 6 mi (10 km) upstream from station for use in Dayton; most of return flow from diversions bypasses station in Dayton sewer systems.

COOPERATION.--Gage-height charts, tapes and 16 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--48 years (1929-77), 2,087 ft³/s (59.10 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,900 ft³/s (1,720 m³/s) Jan. 22, 1959, gage height, 35.45 ft (10.805 m) in gage well, from graph based on gage readings; 36.0 ft (10.97 m), from outside floodmarks; minimum daily, 109 ft³/s (3.09 m³/s) Aug. 8, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913 reached a stage of 29.0 ft (8.84 m), site and datum then in use, discharge, 250,000 ft³/s (7,080 m³/s), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,600 ft³/s (527 m³/s) Apr. 3, gage height, 28.53 ft (8.696 m) in gage well, 28.90 ft (8.809 m), from outside gage; minimum daily, 206 ft³/s (5.83 m³/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	377	526	403	360	250	2670	1420	1070	412	1200	263	233
2	338	459	383	340	250	1640	5800	999	390	681	241	230
3	320	431	383	330	260	1230	17100	969	365	364	231	226
4	314	431	332	320	270	2900	12400	2780	343	285	231	216
5	302	424	291	330	260	6160	8680	4530	345	268	231	231
6	345	417	332	320	240	4340	5540	3960	390	247	236	273
7	326	397	390	310	230	2820	4020	3550	360	236	417	232
8	332	410	345	300	240	2060	3190	2680	391	241	558	234
9	370	424	302	280	250	1530	2530	2090	470	226	558	222
10	377	397	308	270	300	1260	2060	1680	580	241	257	243
11	364	377	314	250	452	1100	1750	1430	774	257	445	229
12	377	377	285	240	640	1440	1490	1100	626	231	893	227
13	383	377	285	230	766	2870	1300	999	544	221	397	245
14	357	377	279	230	1150	3270	1200	931	524	216	466	1090
15	314	397	274	250	1170	2380	1110	874	455	211	320	362
16	291	397	279	270	855	1720	1050	834	437	206	362	581
17	285	383	285	250	706	1240	989	785	422	226	300	642
18	296	424	274	240	640	1750	950	752	600	216	251	764
19	296	534	263	230	534	3490	912	708	374	239	232	1070
20	377	503	302	240	566	3320	902	682	313	236	216	542
21	403	496	332	260	550	2700	865	625	277	326	226	315
22	338	511	290	250	606	2590	950	577	291	326	243	281
23	345	503	270	240	2210	3220	999	566	293	257	243	271
24	673	496	250	250	5660	3370	969	535	288	216	294	255
25	534	496	248	260	6030	2600	1030	515	319	221	259	238
26	466	648	240	260	4020	2010	1010	482	355	231	230	232
27	445	582	280	250	3390	1470	921	475	348	247	220	222
28	431	481	260	250	3890	1620	1110	465	393	236	220	213
29	424	466	240	260	---	2570	1400	443	422	390	217	215
30	466	417	230	260	---	2700	1270	430	521	291	228	228
31	656	---	220	250	---	1980	---	426	---	268	235	---
TOTAL	11922	13558	9161	8380	36385	76020	84917	38912	12630	9257	9720	10562
MEAN	385	452	296	270	1299	2452	2831	1255	421	299	314	352
MAX	673	648	403	360	6030	6160	17100	4530	774	1200	893	1090
MIN	285	377	220	230	230	1100	865	426	277	206	216	213

CAL YR 1976 TOTAL 562065 MEAN 1536 MAX 18500 MIN 220
WTR YR 1977 TOTAL 321424 MEAN 881 MAX 17100 MIN 206

03270800 WOLF CREEK AT TROTWOOD, OH

LOCATION.--Lat 39°47'39", long 84°18'36", Montgomery County, Hydrologic Unit 05080002, on right bank 350 ft (107 m) downstream from Union Road Bridge, 700 ft (213 m) downstream from unnamed right bank tributary, 0.2 mi (0.3 km) south of Trotwood, and 0.3 mi (0.5 km) upstream from North Branch.

DRAINAGE AREA.--22.7 mi² (58.8 km²).

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 826.28 ft (251.850 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

COOPERATION.--Gage-height charts, tapes and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--15 years, 20.1 ft³/s (0.569 m³/s), 12.02 in/yr (305 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,970 ft³/s (84.1 m³/s) May 24, 1968, gage height, 6.47 ft (1.972 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s); no flow all or part of each day Sept. 8-17, Oct. 3, 1964, Sept. 16-19, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge during flood in January 1959, about 3,900 ft³/s (110 m³/s), gage height, 8.0 ft (2.44 m), computed by Miami Conservancy District on basis of estimate of peak flow based on contracted-opening measurement at site 1.1 mi (1.8 km) downstream with drainage area of 48.2 mi² (125 km²), adjusted to gage site by 0.8 power of the drainage-area ratio. Flood in March 1913 reached a stage of 9.4 ft (2.87 m), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximums (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Feb. 24	0330	391	11.1	2.44	0.744	Apr. 2	1815	*2190	62.0	*5.43	1.655
Mar. 4	1530	286	8.10	2.14	0.652	May 4	0715	296	8.38	2.17	0.661

Minimum discharge, 0.24 ft³/s (0.007 m³/s) Nov. 22, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	2.7	.47	.38	.46	15	11	13	1.4	29	.71	.59
2	.52	1.5	.43	.54	.46	11	680	12	1.4	12	.60	.52
3	.54	1.2	.43	.72	.50	14	279	11	1.6	5.3	.54	.48
4	.75	1.1	.50	.58	.54	193	117	118	1.5	3.1	.49	.49
5	1.3	.93	.60	.54	.60	73	78	65	1.5	2.2	.46	1.0
6	4.7	.88	.75	.52	.60	33	45	41	1.9	1.5	.41	.40
7	5.7	.87	.96	.49	.58	22	31	63	2.3	1.3	2.2	.56
8	.68	.81	.76	.46	.56	16	24	39	3.1	1.1	6.0	.48
9	1.0	.96	.64	.49	.54	13	19	23	7.2	1.0	3.7	.54
10	1.7	1.0	.58	.55	.52	11	17	17	2.9	.86	1.4	1.0
11	.76	.81	.54	.52	.58	8.8	14	13	2.2	.87	1.5	.65
12	.76	.72	.52	.50	2.0	47	12	11	2.3	.92	4.5	.45
13	.96	.76	.50	.49	60	78	11	9.5	2.1	.85	1.7	2.9
14	1.3	.74	.47	.48	38	31	10	8.1	2.7	.68	13	3.5
15	1.3	.73	.44	.48	16	21	9.0	6.7	2.4	.63	3.0	1.8
16	1.5	.69	.42	.48	12	15	8.2	5.3	1.9	.59	2.1	3.3
17	1.5	.75	.41	.47	9.6	12	7.7	4.7	1.8	.54	1.8	1.5
18	1.8	.85	.40	.47	8.0	38	7.2	4.2	4.9	.52	.89	.90
19	1.3	.61	.40	.47	6.8	24	6.9	3.6	4.9	.46	.67	1.5
20	6.1	.36	.39	.47	6.0	24	6.2	3.0	1.8	.44	.60	1.4
21	6.7	.38	.39	.47	5.4	19	5.8	2.6	1.5	2.0	.76	.81
22	2.2	.35	.38	.47	28	29	12	2.2	1.6	2.1	1.0	.72
23	2.6	.34	.37	.47	170	22	11	2.1	2.3	.95	.68	.67
24	14	.32	.36	.47	158	17	10	2.0	2.0	.60	1.8	.60
25	5.6	.34	.36	.47	48	14	10	1.9	2.7	.53	1.2	.67
26	3.4	5.1	.35	.47	25	12	8.6	1.7	4.7	.58	.66	.69
27	1.8	3.7	.35	.47	42	11	7.1	1.5	3.1	.41	.61	.63
28	1.2	1.0	.35	.47	20	32	24	1.5	3.0	.41	.56	.63
29	.96	.92	.35	.47	---	26	32	1.5	1.9	2.7	.66	.63
30	.96	.52	.34	.46	---	18	18	1.5	2.9	7.9	1.5	.70
31	11	---	.34	.46	---	14	---	1.5	---	1.2	.78	---
TOTAL	85.22	31.94	14.55	15.25	652.74	913.8	1531.7	491.1	77.5	83.16	56.48	30.71
MEAN	2.75	1.06	.47	.49	23.3	29.5	51.1	15.8	2.58	2.68	1.82	1.02
MAX	14	5.1	.96	.72	170	193	680	118	7.2	29	13	3.5
MIN	.52	.32	.34	.38	.46	8.8	5.8	1.5	1.4	.41	.41	.40
CFSM	.12	.05	.02	.02	1.03	1.30	2.25	.70	.11	.12	.08	.05
IN.	.14	.05	.02	.02	1.07	1.50	2.51	.80	.13	.14	.09	.05

CAL YR 1976 TOTAL 4252.94 MEAN 11.6 MAX 421 MIN .09 CFSM .51 IN 6.97
WTR YR 1977 TOTAL 3984.15 MEAN 10.9 MAX 680 MIN .32 CFSM .48 IN 6.53

03271500 GREAT MIAMI RIVER AT MIAMISBURG, OH

LOCATION.--Lat 39°38'40", long 84°17'23", in sec. 31, R.6, T.1, Montgomery County, Hydrologic Unit 05080002, on left bank 600 ft (183 m) downstream from bridge on State Highway 725 at Miamisburg, 0.3 mi (0.5 km) downstream from Bear Creek, and 3.2 mi (5.1 km) upstream from Crains Run.

DRAINAGE AREA.--2,711 mi² (7,021 km²).

PERIOD OF RECORD.--March 1916 to September 1920 (published as Maimi River at Franklin 1916-17), August 1924 to September 1935 (published as Miami River near Miamisburg), October 1952 to current year (published as Miami River at Miamisburg 1952-62). Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: 1929(M). WSP 1385: 1926. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 678.60 ft (206.837 m) above mean sea level, adjustment of 1912. Mar. 16, 1916 to Sept. 30, 1920, nonrecording gage at site 6.7 mi (10.8 km) downstream at different datum. Aug. 29 to Sept. 16, 1924, nonrecording gage, and Sept. 17, 1924 to Sept. 30, 1935, water-stage recorder, at site 2.2 mi (3.5 km) downstream at datum 677.06 ft (206.368 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation caused by powerplant 0.4 mi (0.6 km) upstream from station. Flood flow regulated by retarding dams beginning in 1920 on Mad River 19 mi (31 km) upstream, on Stillwater River 23 mi (37 km) upstream, on Great Miami River 23 mi (37 km) upstream and on Loramie Creek 52 mi (84 km) upstream. Also see REMARKS for stations 03261500 and 03269500.

COOPERATION.--Gage-height charts, tapes and 14 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--40 years, 2,342 ft³/s (66.33 m³/s), 11.73 in/yr (298 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,800 ft³/s (1,750 m³/s) Jan. 21, 22, 1959, gage height, 20.65 ft (6.294 m), in gage well, from graph based on gage readings; 21.3 ft (6.49 m), from outside floodmarks; minimum daily, 148 ft³/s (4.19 m³/s) Sept. 7, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 26, 1913 reached a discharge of 257,000 ft³/s (7,280 m³/s), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s (532 m³/s) Apr. 3, gage height, 11.40 ft (3.475 m); minimum daily, 270 ft³/s (7.65 m³/s) Dec. 30, Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	486	599	451	280	290	2960	1790	1340	762	1350	363	469
2	458	564	436	290	310	2030	5820	1310	746	1030	374	450
3	444	538	415	320	320	1610	17400	1220	729	665	363	414
4	444	530	408	370	340	3600	13500	2910	707	537	368	365
5	451	523	381	400	350	6110	9810	4480	685	510	389	353
6	501	508	401	390	350	4710	6240	4270	718	493	391	451
7	465	486	451	370	350	3110	4620	4190	690	460	467	417
8	451	486	415	360	350	2310	3760	2980	687	470	579	397
9	472	486	401	350	350	1860	3080	2280	847	434	709	389
10	465	479	388	380	380	1610	2670	1890	758	415	451	421
11	465	465	388	360	460	1460	2150	1730	1000	460	476	375
12	472	451	381	340	980	1890	1840	1370	893	435	889	371
13	472	436	374	330	1100	3120	1660	1320	808	418	544	384
14	472	429	381	350	1300	3470	1500	1180	809	405	801	949
15	458	436	374	330	1400	2620	1380	1100	719	407	515	565
16	429	436	374	310	1100	2010	1320	1050	667	362	456	700
17	422	422	374	300	850	1600	1230	1010	617	361	683	641
18	429	422	367	300	720	2010	1190	969	827	399	446	775
19	422	486	354	310	650	3200	1150	928	823	354	413	976
20	486	486	374	330	610	3480	1150	906	559	353	403	655
21	494	472	395	330	591	2830	1120	860	503	413	409	512
22	451	486	370	320	671	2760	1220	822	502	509	449	460
23	436	501	340	320	1860	3030	1270	825	492	382	445	448
24	697	494	310	320	5660	3450	1210	832	479	319	542	426
25	590	479	290	340	6170	2740	1230	834	491	317	497	390
26	547	616	290	350	4280	2220	1260	791	531	314	466	397
27	523	581	280	340	3440	1820	1170	787	527	329	445	387
28	515	486	290	320	3930	1950	1410	783	536	320	443	378
29	588	479	320	300	---	2430	1760	754	525	725	445	366
30	538	465	270	280	---	2840	1570	738	535	498	451	379
31	725	---	280	270	---	2230	---	745	---	362	461	---
TOTAL	15188	14727	11323	10260	39162	83070	96480	47204	20172	14806	15133	14670
MEAN	490	491	365	331	1399	2680	3216	1523	672	478	488	489
MAX	725	616	451	400	6170	6110	17400	4480	1000	1350	889	976
MIN	422	422	270	270	290	1460	1120	738	479	314	363	353
CFSM	.18	.18	.14	.12	.52	.99	1.19	.56	.25	.18	.18	.18
IN.	.21	.20	.16	.14	.54	1.14	1.32	.65	.28	.20	.21	.20

CAL YR 1976 TOTAL 654436 MEAN 1788 MAX 21500 MIN 270 CFSM .66 IN 8.98
WTR YR 1977 TOTAL 382195 MEAN 1047 MAX 17400 MIN 270 CFSM .39 IN 5.24

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OH

LOCATION.--Lat 39°36'39", long 84°17'28", Montgomery County, Hydrologic Unit 05080002, on Chautauqua Road bridge, about 2.0 mi (3.2 km) south of Miamisburg and 2.5 mi (4.0 km) downstream from discharge station at Miamisburg.

DRAINAGE AREA.--2,715 mi² (7,032 km²).

PERIOD OF RECORD.--Water year 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1964 to current year.
pH: March 1964 to current year.
WATER TEMPERATURES: March 1964 to current year.
DISSOLVED OXYGEN: March 1964 to current year.

INSTRUMENTATION.--Water-quality monitor, since March 1964. Prior to November 1971, at site 400 ft (122 m) downstream, in G. H. Hutchings powerplant.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations. See records of daily discharge for station at Miamisburg (station 03271500).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,350 micromhos Feb. 12, 1977; minimum, 219 micromhos June 22, 1974.
pH: Maximum, 9.3 units May 19, 20, 1971; minimum, 5.7 units Feb. 9, 1972.
WATER TEMPERATURES: Maximum, 42.5°C July 15, 1977; minimum, 0.0°C on several days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on several days during most years; minimum, 0.0 mg/L on many days during 1964-66, 1970-71, 1974-75, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,350 micromhos Feb. 12; minimum, 391 micromhos Apr. 3.
pH: Maximum, 9.0 units June 12, 13; minimum, 7.1 units Aug. 19, Sept. 15.
WATER TEMPERATURES: Maximum, 42.5°C July 15; minimum, 0.0°C Jan. 10, 11, 16, Mar. 1, 2.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher June 12, 13; minimum, 0.0 mg/L Apr. 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAR 23...	1305	2670	680	8.1	8.0	9.6	81	4.2	300	99	77	26
JUN 20...	1215	459	660	7.4	29.0	2.0	26	7.2	210	60	50	21

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)
MAR 23...	22	3.2	244	0	200	3.1	73	45	.2	5.5	372	8.5
JUN 20...	36	3.0	184	0	151	12	58	55	.3	5.0	320	1.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR 23...	.10	.55	.46	1	10	12	20	13	20	.2	50	7.6
JUN 20...	.23	2.3	.88	4	10	11	50	23	50	.6	50	8.1

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	813	774	750	663	867	843	957	951	---	---	609	549
2	843	771	798	726	879	837	---	---	---	---	636	594
3	840	816	813	795	891	852	---	---	---	---	657	633
4	834	807	852	822	915	861	945	861	---	---	651	564
5	852	801	849	825	897	867	1030	897	---	---	594	537
6	867	822	894	834	897	858	1030	897	---	---	552	522
7	858	783	870	834	903	855	1200	939	1120	1050	588	537
8	843	780	861	822	999	900	1050	927	1090	1030	645	582
9	876	834	867	825	957	921	1010	906	1120	1060	690	645
10	855	795	876	849	921	897	906	843	1130	1060	714	687
11	804	777	879	855	903	867	924	843	1330	1140	759	711
12	873	801	900	858	888	858	939	879	1350	1110	759	624
13	882	837	876	855	894	852	966	903	1110	990	651	564
14	861	843	879	843	888	837	999	945	999	915	678	642
15	882	852	849	822	966	891	1010	948	960	897	693	639
16	894	864	864	816	942	921	960	951	900	843	696	672
17	900	864	---	---	948	912	---	---	843	822	717	675
18	888	849	---	---	957	912	---	---	864	828	723	639
19	885	834	---	---	945	921	---	---	879	846	669	627
20	906	870	---	---	924	876	---	---	864	831	624	576
21	876	810	---	---	900	858	---	---	981	828	603	576
22	855	795	---	---	957	903	---	---	978	834	606	591
23	891	861	---	---	960	912	---	---	828	666	709	603
24	870	693	---	---	945	906	---	---	648	522	670	658
25	684	624	---	---	960	900	---	---	522	501	667	643
26	810	693	---	---	909	864	---	---	543	504	697	685
27	834	771	---	---	927	855	---	---	591	546	715	703
28	837	801	---	---	927	858	---	---	588	561	724	721
29	858	834	786	747	987	930	---	---	---	---	745	709
30	867	822	867	762	993	945	---	---	---	---	727	691
31	825	675	---	---	993	936	---	---	---	---	709	621
MONTH	906	624	900	663	999	837	1200	843	1350	501	759	522

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	724	691	774	750	933	876	945	750	894	816	1050	996
2	730	394	777	759	906	873	765	702	921	879	1020	984
3	445	391	828	780	924	888	720	687	957	891	1030	993
4	502	445	834	582	951	900	825	726	1020	957	1020	981
5	565	502	681	609	948	909	909	825	1020	975	981	969
6	610	565	678	663	942	906	927	879	1020	993	987	957
7	672	610	678	639	939	903	939	912	1010	975	966	930
8	684	660	714	666	972	921	951	930	963	780	1010	963
9	711	672	741	702	945	858	942	915	840	657	1070	1010
10	744	699	765	729	855	798	945	909	816	657	1040	1010
11	774	729	780	750	909	825	966	909	885	816	1010	930
12	783	762	804	771	876	834	948	903	852	588	942	930
13	804	768	834	792	888	837	996	948	765	603	1020	942
14	801	789	852	819	891	852	1030	975	714	567	1020	633
15	804	795	840	810	891	861	1040	1000	756	639	771	639
16	810	792	825	813	963	876	1040	1010	894	768	759	702
17	801	780	861	822	960	948	1020	993	879	723	702	651
18	804	777	867	846	987	927	1030	996	786	663	804	600
19	825	789	873	856	936	528	999	954	960	786	750	678
20	828	804	897	852	804	531	1040	981	990	960	741	678
21	816	774	891	852	933	819	1050	1010	966	954	849	741
22	819	768	885	855	951	924	999	894	954	927	912	834
23	771	744	876	855	948	912	897	855	948	906	948	845
24	777	765	933	876	975	939	903	867	954	888	942	924
25	789	753	909	888	969	942	960	909	903	849	966	939
26	801	789	933	891	957	897	990	939	918	849	972	945
27	828	792	960	906	927	834	1020	984	963	900	987	946
28	828	753	966	918	939	861	1030	990	996	957	1020	963
29	753	657	942	897	939	885	1030	657	984	954	1010	972
30	750	720	936	870	960	909	723	615	1000	945	1050	999
31	---	---	942	879	---	---	801	627	1020	972	---	---
MONTH	828	391	966	582	987	528	1050	615	1020	567	1070	600
YEAR	1350	391										

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	7.6	7.9	7.6	8.2	7.8	8.0	7.9	8.4	8.2	8.0	7.8
2	7.7	7.6	7.9	7.5	8.1	7.9	---	---	8.5	8.1	7.8	7.7
3	8.0	7.6	7.8	7.6	8.1	7.9	---	---	8.5	8.4	7.8	7.7
4	8.4	7.6	7.8	7.7	8.0	7.9	7.9	7.6	8.6	8.5	7.8	7.7
5	8.2	7.9	7.8	7.5	7.9	7.8	7.9	7.7	8.5	8.1	7.9	7.8
6	7.9	7.7	7.9	7.5	7.8	7.6	7.9	7.7	8.4	8.2	7.9	7.8
7	7.8	7.6	7.9	7.7	7.9	7.6	7.9	7.7	8.6	8.3	7.9	7.8
8	7.8	7.6	8.0	7.8	8.0	7.8	8.0	7.8	8.6	8.2	7.8	7.8
9	7.9	7.8	8.0	7.7	---	---	7.9	7.7	8.5	8.2	7.9	7.8
10	8.1	7.8	8.2	8.0	---	---	8.0	7.7	8.5	8.0	7.9	7.8
11	8.1	7.9	8.1	7.9	7.9	7.7	8.1	8.0	8.4	7.9	8.0	7.8
12	---	---	7.9	7.8	7.8	7.6	8.1	7.9	8.3	7.9	8.0	7.8
13	---	---	7.9	7.7	7.7	7.4	8.1	8.0	8.5	8.3	8.0	7.8
14	8.0	7.8	7.8	7.6	7.8	7.5	8.0	7.7	8.5	8.1	8.0	7.9
15	8.1	7.9	7.9	7.7	7.7	7.4	7.9	7.8	8.4	8.1	8.0	7.9
16	8.1	7.9	7.9	7.7	7.8	7.5	7.9	7.8	8.4	7.9	8.0	7.8
17	8.1	7.9	---	---	7.9	7.7	---	---	8.4	8.1	7.9	7.7
18	8.2	7.9	---	---	7.9	7.6	---	---	8.2	7.8	7.8	7.7
19	8.2	8.0	---	---	7.9	7.7	---	---	8.1	7.9	7.9	7.8
20	8.0	7.8	---	---	7.8	7.6	---	---	8.1	7.5	7.9	7.9
21	7.9	7.8	---	---	7.9	7.6	---	---	8.2	7.9	7.9	7.8
22	7.8	7.7	---	---	8.0	7.9	---	---	8.2	7.9	7.9	7.8
23	8.0	7.8	---	---	8.0	7.8	---	---	8.1	8.0	8.1	7.9
24	7.9	7.7	---	---	7.9	7.8	---	---	8.1	7.7	8.1	7.9
25	7.8	7.6	---	---	8.0	7.7	---	---	8.2	8.0	7.9	7.8
26	8.0	7.8	---	---	7.9	7.8	---	---	8.0	7.9	7.9	7.8
27	8.0	7.8	---	---	8.0	7.7	---	---	8.1	7.9	8.1	7.5
28	8.0	7.8	---	---	8.0	7.8	---	---	8.1	7.8	7.9	7.7
29	7.9	7.7	7.7	7.6	7.9	7.7	---	---	---	---	8.2	7.8
30	7.9	7.8	7.8	7.5	8.0	7.7	---	---	---	---	8.2	8.0
31	---	---	---	---	8.0	7.6	---	---	---	---	8.1	7.9
MONTH	8.4	7.6	8.2	7.5	8.2	7.4	8.1	7.6	8.6	7.5	8.2	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.8	8.4	7.9	8.2	7.7	8.0	7.6	---	---	8.0	7.8
2	7.9	7.7	8.2	8.0	8.4	7.7	8.4	8.1	7.9	7.7	8.1	7.9
3	7.8	7.7	8.2	7.8	8.4	8.1	8.1	7.5	8.0	7.5	8.1	7.9
4	7.8	7.8	7.9	7.7	8.4	8.0	8.0	7.5	7.9	7.7	8.1	7.9
5	8.0	7.8	8.0	7.8	8.4	7.8	8.1	7.8	8.0	7.7	---	---
6	8.0	7.9	8.0	8.0	8.2	7.6	8.2	7.9	8.0	7.7	8.1	7.9
7	8.1	7.9	8.0	7.9	8.2	7.8	8.2	7.8	7.9	7.7	8.1	7.8
8	8.1	7.7	8.1	7.9	8.2	7.8	7.9	7.7	7.9	7.7	8.0	7.8
9	8.1	7.9	8.2	8.0	8.4	7.7	7.9	7.8	7.8	7.5	7.9	7.8
10	8.1	7.9	8.2	8.1	8.4	7.6	7.8	7.6	7.6	7.4	8.0	7.9
11	8.1	8.0	8.2	8.0	8.6	7.8	7.8	7.6	7.6	7.3	8.1	7.6
12	8.2	8.0	8.3	8.0	9.0	8.3	7.9	7.6	7.6	7.3	8.0	7.5
13	8.2	8.0	---	---	9.0	8.5	7.9	7.6	7.5	7.2	8.0	7.6
14	8.5	8.0	---	---	8.7	7.8	8.0	7.6	7.7	7.3	8.1	7.5
15	8.6	8.1	---	---	8.2	7.7	8.1	7.7	7.7	7.5	7.7	7.1
16	8.8	8.1	---	---	8.0	7.6	8.0	7.7	7.9	7.7	7.6	7.4
17	8.8	8.1	---	---	8.1	7.7	7.9	7.7	8.1	7.7	7.8	7.4
18	8.8	8.2	---	---	7.9	7.7	7.9	7.8	7.9	7.2	7.9	7.6
19	8.5	8.0	---	---	7.9	7.4	8.0	7.7	7.8	7.1	8.0	7.7
20	8.6	7.9	8.3	7.6	7.7	7.3	7.9	7.8	7.8	7.4	7.9	7.6
21	8.3	8.0	8.1	7.5	7.9	7.6	7.9	7.7	7.8	7.4	8.3	7.7
22	8.1	7.8	8.1	7.5	7.8	7.6	7.9	7.5	7.8	7.4	7.9	7.4
23	8.0	7.7	7.9	7.5	7.8	7.5	7.8	7.3	7.8	7.5	8.1	7.8
24	8.1	7.8	7.9	7.4	7.7	7.5	7.8	7.5	7.7	7.5	8.0	7.9
25	8.1	7.8	---	---	7.8	7.5	7.9	7.4	7.7	7.3	8.2	7.8
26	8.1	7.7	---	---	8.0	7.6	8.1	7.6	7.7	7.3	8.0	7.6
27	8.3	7.6	---	---	7.9	7.6	8.0	7.4	7.8	7.5	8.0	7.8
28	8.1	7.8	---	---	7.7	7.6	8.0	7.5	8.1	7.6	8.0	7.7
29	8.0	7.7	8.5	7.9	7.7	7.5	---	---	8.0	7.8	8.1	7.9
30	8.2	7.8	8.3	7.7	7.8	7.6	---	---	8.0	7.8	8.1	7.9
31	---	---	8.2	7.8	---	---	---	---	7.9	7.8	---	---
MONTH	8.8	7.6	8.5	7.4	9.0	7.3	8.4	7.3	8.1	7.1	8.3	7.1
YEAR	9.0	7.1										

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	17.5	11.5	8.0	8.0	5.5	2.0	1.0	1.0	0.5	2.0	0.0
2	22.0	18.5	14.0	11.0	8.0	5.5	---	---	5.0	1.0	3.5	0.0
3	22.5	19.0	14.5	13.0	6.5	4.5	---	---	9.0	5.5	5.5	2.5
4	22.5	19.5	13.5	11.5	9.0	6.5	8.0	5.5	9.5	5.0	6.5	5.0
5	23.0	21.0	12.0	11.0	8.5	6.5	8.5	7.0	5.0	2.5	5.5	2.0
6	22.5	18.5	12.0	10.0	8.5	7.0	7.0	4.5	4.0	1.5	4.5	0.5
7	18.5	17.0	12.0	9.0	8.5	7.5	6.5	2.5	4.0	2.0	4.0	1.0
8	18.0	16.5	9.0	7.5	8.0	5.5	5.0	2.0	5.0	1.5	8.0	2.0
9	18.0	16.5	12.5	9.0	7.5	5.0	5.5	4.0	10.0	5.5	10.0	6.0
10	18.0	16.0	13.0	11.0	9.5	8.0	4.5	0.0	13.0	10.0	11.5	8.5
11	18.5	16.0	12.0	11.0	10.0	8.5	2.0	0.0	13.0	6.5	13.5	8.5
12	20.5	17.0	12.0	11.5	8.5	8.0	2.5	1.0	6.0	3.0	13.5	12.0
13	22.0	20.5	12.5	11.0	8.5	7.0	3.5	1.0	3.0	1.5	12.0	10.5
14	22.0	20.5	12.0	10.0	8.5	6.5	6.0	4.0	3.5	1.0	13.5	9.5
15	21.5	19.5	11.0	10.0	11.5	9.0	6.0	4.0	4.5	3.0	15.5	10.0
16	20.0	18.0	11.5	9.0	11.5	9.0	4.0	0.0	5.0	2.5	13.5	11.5
17	18.0	16.5	---	---	11.5	11.0	---	---	5.5	3.5	11.5	10.0
18	18.0	13.0	---	---	13.0	10.5	---	---	6.5	4.5	10.5	7.0
19	15.0	13.5	---	---	12.5	10.5	---	---	7.5	6.0	7.5	6.0
20	15.5	14.5	---	---	12.5	6.5	---	---	7.0	5.0	6.5	4.5
21	14.5	13.0	---	---	6.0	3.0	---	---	6.5	4.5	8.5	3.5
22	13.0	11.0	---	---	5.5	4.0	---	---	11.0	5.5	7.5	5.5
23	12.0	10.5	---	---	5.5	2.5	---	---	10.0	7.0	8.5	5.0
24	12.5	11.0	---	---	6.0	4.5	---	---	6.5	3.0	7.5	3.5
25	12.0	11.5	---	---	7.0	5.0	---	---	4.5	2.5	9.0	4.0
26	12.0	11.0	---	---	7.0	3.5	---	---	4.5	3.5	10.5	6.0
27	11.0	10.0	---	---	6.0	3.5	---	---	4.5	2.5	12.0	8.5
28	11.0	9.0	---	---	6.5	5.5	---	---	3.0	1.0	14.0	11.0
29	12.0	10.5	7.0	6.5	6.5	3.0	---	---	---	---	17.0	13.0
30	12.0	11.5	6.5	5.0	3.5	0.5	---	---	---	---	19.0	15.0
31	12.0	9.5	---	---	3.0	1.0	---	---	---	---	15.5	11.5
MONTH	23.0	9.0	14.5	5.0	13.0	0.5	8.5	0.0	13.0	0.5	19.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	10.0	19.5	15.0	28.0	24.5	27.5	25.5	28.5	25.0	41.0	29.5
2	15.0	14.0	21.5	19.0	24.5	22.5	27.5	24.5	32.5	24.5	42.0	30.5
3	14.0	11.0	21.5	19.5	24.0	21.5	26.5	24.0	34.0	24.5	40.0	30.5
4	12.5	10.5	20.5	19.0	24.5	21.5	28.5	25.0	34.5	25.0	31.0	29.0
5	10.5	7.0	21.0	18.0	24.5	23.0	32.5	27.5	37.0	26.5	33.0	28.5
6	7.0	5.5	20.5	19.5	25.0	23.5	36.0	29.0	31.5	27.5	32.0	28.0
7	10.0	5.0	20.5	18.0	23.0	21.0	39.0	31.0	28.5	27.0	36.5	27.0
8	10.0	8.0	20.0	17.0	21.5	20.0	39.5	31.0	28.0	26.0	35.0	26.5
9	10.5	7.5	18.0	15.5	20.0	18.0	32.5	31.0	27.0	25.5	35.0	27.0
10	14.0	9.0	18.0	15.0	21.5	18.5	31.0	27.0	26.5	25.0	28.0	26.0
11	17.5	12.5	19.0	15.0	22.0	20.0	32.5	25.5	35.0	25.5	26.5	24.0
12	20.0	15.5	20.5	16.0	23.0	20.0	34.5	26.5	26.5	24.0	31.0	22.5
13	21.5	17.0	22.5	17.5	23.5	21.0	38.0	28.0	24.5	23.0	24.5	21.5
14	21.5	18.5	23.5	19.5	23.5	22.0	39.5	30.0	27.5	23.0	23.0	21.5
15	20.5	18.0	25.0	20.5	26.5	23.0	42.5	31.5	27.5	25.0	21.5	19.5
16	22.0	17.0	26.0	21.5	28.0	25.0	41.5	32.5	31.5	26.5	22.0	21.0
17	22.5	19.0	26.5	22.5	30.0	26.5	42.0	32.0	27.5	26.0	23.5	21.0
18	23.5	19.0	27.5	23.5	28.5	27.0	39.0	31.0	26.0	24.0	24.0	22.0
19	22.5	20.5	29.0	24.0	27.0	24.5	41.0	29.5	26.0	23.5	23.5	22.0
20	23.5	20.5	29.0	25.0	27.0	24.5	42.0	32.0	26.5	24.0	22.0	20.5
21	23.0	21.5	28.5	25.5	27.0	24.5	37.0	31.0	25.0	23.0	20.5	18.5
22	21.5	20.0	27.5	25.0	25.5	23.5	31.5	29.0	25.0	22.0	25.5	17.5
23	20.0	18.0	26.0	23.5	25.0	22.5	29.0	26.0	26.5	24.0	26.0	19.5
24	18.5	16.5	26.5	24.0	26.5	24.0	29.0	26.5	25.5	24.5	22.5	21.5
25	16.0	13.5	27.0	24.5	27.5	25.5	37.5	27.5	24.0	22.5	23.0	20.5
26	16.5	12.5	27.0	24.5	28.0	25.5	35.0	25.5	26.0	22.0	23.0	21.5
27	18.5	14.0	27.5	24.5	27.5	26.0	30.5	25.0	27.0	24.0	24.0	21.0
28	17.5	13.5	28.0	25.5	28.0	25.5	33.5	24.5	29.0	26.0	25.5	21.0
29	15.5	11.5	28.0	26.0	24.5	26.0	32.0	22.5	35.5	27.0	29.0	19.5
30	17.0	13.0	28.5	25.5	27.5	26.0	26.5	22.0	34.5	26.0	30.0	21.0
31	---	---	28.5	26.5	---	---	29.5	24.5	37.0	26.5	---	---
MONTH	23.5	5.0	29.0	15.0	30.0	18.0	42.5	22.0	37.0	22.0	42.0	17.5
YEAR	42.5	0.0										

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.6	1.9	7.0	6.0	9.0	7.1	8.9	7.2	7.0	6.8	12.9	12.3
2	2.9	1.8	7.1	3.9	7.2	6.2	---	---	6.9	2.6	12.2	11.3
3	5.1	1.7	5.9	4.1	7.5	6.6	---	---	4.9	2.6	11.3	10.1
4	7.3	3.3	5.3	3.3	7.5	5.4	7.8	6.0	4.8	2.6	11.0	10.1
5	6.6	2.3	5.1	4.0	6.4	5.1	8.4	6.3	5.1	2.4	12.2	10.8
6	3.1	1.4	5.4	3.9	7.1	5.6	8.7	6.9	5.9	3.6	12.5	11.9
7	1.7	0.8	6.0	4.6	6.7	4.1	8.7	6.3	6.9	3.9	12.2	11.5
8	2.4	1.5	6.7	5.7	6.4	4.8	9.6	8.2	7.5	4.1	11.6	11.0
9	3.1	2.6	7.1	5.3	6.8	5.9	9.5	6.6	5.7	2.5	11.0	9.2
10	4.3	3.3	6.5	3.8	6.6	5.4	10.2	7.8	5.1	1.7	9.0	7.7
11	4.9	4.3	5.9	4.2	6.2	4.3	10.2	7.6	4.1	0.9	8.1	6.8
12	5.1	3.3	5.6	4.2	6.4	5.0	8.8	6.2	6.5	1.0	6.6	5.2
13	3.8	2.7	5.8	4.3	7.0	4.7	8.6	6.5	9.1	5.6	8.7	6.9
14	3.9	2.8	6.9	5.5	7.8	5.0	9.1	6.0	9.4	8.5	9.3	8.7
15	4.2	2.6	8.4	6.6	6.6	3.3	7.0	4.8	10.5	8.3	8.9	8.1
16	4.4	3.8	8.6	6.7	5.6	3.0	6.2	5.1	10.3	9.3	8.5	7.1
17	4.7	4.2	---	---	5.1	2.5	---	---	9.6	8.3	7.9	6.2
18	6.4	4.5	---	---	5.9	3.3	---	---	8.6	5.7	---	---
19	6.3	4.5	---	---	6.2	3.2	---	---	6.6	3.5	---	---
20	4.4	3.0	---	---	5.2	3.1	---	---	6.6	3.9	---	---
21	5.2	3.3	---	---	5.4	3.6	---	---	7.7	5.8	---	---
22	5.3	3.8	---	---	6.3	4.7	---	---	7.0	4.5	---	---
23	5.4	4.8	---	---	6.4	4.0	---	---	7.2	4.5	---	---
24	6.7	4.7	---	---	5.1	3.8	---	---	12.1	7.9	---	---
25	6.5	5.6	---	---	6.2	3.4	---	---	13.0	12.2	---	---
26	6.0	4.8	---	---	4.8	3.2	---	---	13.2	12.3	---	---
27	6.0	5.2	---	---	5.9	4.4	---	---	12.9	12.2	---	---
28	6.5	5.5	---	---	6.8	3.7	---	---	13.6	12.8	8.0	4.6
29	6.5	5.0	7.6	5.6	7.8	5.4	---	---	---	---	9.0	4.8
30	5.9	4.4	9.0	7.3	10.1	7.2	---	---	---	---	7.9	5.1
31	6.8	5.3	---	---	10.0	3.9	---	---	---	---	8.9	6.4
MONTH	7.3	0.8	9.0	3.3	10.1	2.5	10.2	4.8	13.6	0.9	12.9	4.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.7	6.5	9.6	5.9	8.5	1.4	4.3	1.2	3.4	0.9	3.0	0.8
2	7.5	4.5	7.9	5.2	9.5	2.5	10.3	4.0	5.1	0.3	3.2	0.5
3	8.9	7.1	5.5	1.7	10.1	3.7	6.0	2.5	3.1	2.2	3.2	0.4
4	9.0	7.4	5.4	2.8	12.1	3.6	5.7	2.2	---	---	3.8	1.0
5	9.8	9.4	6.5	5.0	11.7	5.7	5.6	2.3	---	---	6.0	1.3
6	10.8	9.4	6.6	6.0	8.5	3.0	7.3	1.9	---	---	3.1	0.8
7	11.0	9.8	6.7	5.9	8.4	2.5	6.3	1.9	---	---	4.0	0.3
8	10.5	9.2	7.7	6.1	9.4	3.0	2.9	0.6	---	---	4.6	0.4
9	10.8	8.8	8.1	6.3	10.2	1.7	2.3	0.4	---	---	2.3	0.7
10	9.8	8.0	8.5	6.7	10.3	2.4	1.4	0.2	---	---	2.5	1.5
11	9.3	7.7	8.3	6.4	10.9	2.6	2.5	0.5	1.9	0.6	2.8	1.0
12	9.1	6.3	8.3	5.6	15.0	5.0	3.2	0.5	1.8	0.7	2.1	1.4
13	7.0	2.8	7.5	1.8	15.0	6.9	5.9	0.9	2.2	1.6	2.5	1.3
14	10.2	2.9	9.8	3.6	12.2	2.7	5.8	1.7	3.1	2.1	3.3	1.3
15	11.8	4.2	12.2	4.3	11.4	1.6	7.4	2.0	2.9	1.6	3.4	2.8
16	14.9	4.6	11.9	4.5	9.5	2.0	5.5	1.8	4.0	1.6	3.1	2.2
17	14.6	4.5	10.7	3.2	8.9	2.5	4.4	2.2	5.3	1.5	3.0	2.3
18	14.6	4.7	10.7	2.5	7.8	2.1	4.9	2.5	3.6	1.0	4.4	2.4
19	11.5	3.1	13.1	2.3	4.3	0.1	3.9	1.8	3.5	0.7	4.0	3.3
20	10.7	3.2	10.5	1.0	5.2	0.6	3.3	2.3	3.2	0.4	3.8	2.8
21	7.0	1.7	7.8	0.7	6.2	1.9	3.7	0.7	1.4	0.4	3.0	2.4
22	5.3	1.7	5.7	1.0	6.1	1.3	3.2	0.1	2.1	0.5	7.3	2.2
23	5.8	2.2	6.4	0.8	5.9	0.8	3.8	0.5	1.6	0.5	4.2	2.2
24	6.8	3.3	7.5	1.0	4.1	1.5	3.1	1.3	1.4	0.1	2.6	1.6
25	7.4	3.3	8.5	0.6	5.2	1.3	3.4	2.3	2.0	0.8	6.2	1.7
26	8.2	2.4	10.7	1.1	4.7	1.2	5.4	2.0	4.2	1.4	3.2	1.3
27	7.7	.0	11.7	2.4	4.4	1.8	4.8	2.6	3.9	1.2	1.8	1.0
28	4.8	3.0	11.3	2.3	2.1	0.5	4.3	2.7	5.6	1.0	2.7	0.9
29	7.2	3.0	10.2	3.1	3.4	0.6	4.2	1.2	3.3	0.6	2.6	0.8
30	9.1	5.3	8.9	1.4	3.9	1.1	2.9	2.0	2.6	0.3	2.7	0.6
31	---	---	7.8	1.7	---	---	2.5	0.8	2.4	0.2	---	---
MONTH	14.9	.0	13.1	0.6	15.0	0.1	10.3	0.1	5.6	0.1	7.3	0.3
YEAR	15.0	.0										

03271800 TWIN CREEK NEAR INGOMAR, OH

LOCATION.--Lat 39°42'28", long 84°31'30", in sec. 15, T.5 N., R.3 E., Preble County, Hydrologic Unit 05080002, on left bank at downstream side of bridge on Halderman Road, 0.5 mi (0.8 km) downstream from Bantas Fork, 1.4 mi (2.3 km) west of Ingomar, and 4.8 mi (7.7 km) upstream from Aukerman Creek.

DRAINAGE AREA.--197 mi² (510 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959, 1961-62, October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 815.42 ft (248.540 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

COOPERATION.--Gage-height charts, tapes and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--15 years, 178 ft³/s (5.041 m³/s), 12.27 in/yr (312 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s (547 m³/s) Mar. 4, 1963, gage height, 14.40 ft (4.389 m), from rating curve extended above 7,000 ft³/s (113 m³/s) on basis of contracted-opening measurement at gage height 18.8 ft (5.73 m); minimum daily, 2.5 ft³/s (0.071 m³/s) Sept. 12-14, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959 reached a stage of 18.8 ft (5.73 m), discharge, 30,300 ft³/s (858 m³/s), computed by Miami Conservancy District. Flood of Mar. 25, 1913 reached a stage of 28.0 ft (8.53 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s (340 m³/s) Apr. 2, (base 4,700 ft³/s, 133 m³/s), gage height, 11.81 ft (3.600 m); minimum, 4.3 ft³/s (0.12 m³/s) Oct. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	16	9.0	6.5	7.0	143	114	71	21	922	8.1	7.6
2	5.7	14	8.2	7.0	7.2	184	3940	67	18	265	7.6	7.6
3	5.4	12	7.8	7.0	7.4	105	2420	61	17	114	7.1	7.6
4	5.1	11	7.2	6.6	7.4	1540	934	195	17	66	6.5	7.1
5	4.9	10	7.2	6.4	7.4	834	581	275	17	45	6.5	6.5
6	5.6	9.9	7.2	6.2	7.4	326	360	256	18	34	6.5	6.5
7	5.7	9.4	7.2	6.0	7.4	211	264	434	17	27	7.1	6.5
8	5.4	9.3	7.2	6.0	7.6	156	207	289	18	23	9.9	6.5
9	6.3	8.9	7.0	5.8	8.0	127	164	186	22	20	32	6.4
10	6.3	8.7	7.0	5.8	8.8	106	145	141	22	18	23	6.0
11	6.5	8.7	7.0	5.8	10	87	125	114	22	17	16	5.8
12	6.1	7.9	7.0	5.6	24	251	106	94	20	16	17	5.7
13	5.8	7.9	6.8	5.6	272	891	95	83	18	15	22	6.0
14	5.5	7.9	6.8	5.6	196	327	89	75	18	13	160	7.4
15	5.8	7.9	6.8	6.0	88	211	83	67	17	12	80	6.9
16	5.4	7.9	6.6	6.6	72	156	74	60	15	11	39	9.0
17	5,6	7.8	6.6	7.0	64	119	69	54	14	8.8	29	9.3
18	5.4	7.6	6.6	7.0	56	245	65	51	13	7.4	18	10
19	5.1	7.6	6.4	6.8	50	242	61	47	15	7.0	14	9.1
20	7.0	7.6	6.4	6.8	46	209	59	43	15	6.5	11	8.1
21	7.8	7.4	6.4	6.8	42	184	55	40	13	7.6	9.9	8.0
22	8.1	7.4	6.2	6.8	130	195	62	38	13	8.7	9.9	7.6
23	8.4	7.2	6.2	6.7	676	184	70	37	13	8.1	9.3	7.6
24	14	7.2	6.2	6.7	1400	150	64	35	13	7.6	12	7.5
25	17	7.2	6.0	6.7	506	121	65	34	20	7.6	11	7.1
26	15	11	5.8	6.7	252	104	60	31	85	6.5	9.3	6.7
27	12	17	5.6	6.8	338	93	53	28	44	6.5	8.7	6.5
28	11	16	5.4	6.8	231	310	58	26	56	5.6	7.6	6.4
29	9.6	14	5.4	6.6	---	345	113	24	39	7.1	7.6	6.0
30	10	16	5.4	6.6	---	205	86	24	28	9.3	8.1	6.1
31	15	---	5.6	6.6	---	151	---	23	---	8.7	8.1	---
TOTAL	242.6	298.4	206.2	199.9	4528.6	8432	10641	3003	678	1731.0	621.8	215.1
MEAN	7.83	9.95	6.65	6.45	162	272	355	96.9	22.6	55.8	20.1	7.17
MAX	17	17	9.0	7.0	1400	1540	3940	434	85	922	160	10
MIN	4.9	7.2	5.4	5.6	7.0	87	53	23	13	5.6	6.5	5.7
CFSM	.04	.05	.03	.03	.82	1.38	1.80	.49	.12	.28	.10	.04
IN.	.05	.06	.04	.04	.86	1.59	2.01	.57	.13	.33	.12	.04

CAL YR 1976 TOTAL 36495.5 MEAN 99.7 MAX 3990 MIN 3.9 CFSM .51 IN 6.89
WTR YR 1977 TOTAL 30797.6 MEAN 84.4 MAX 3940 MIN 4.9 CFSM .43 IN 5.82

03272000 TWIN CREEK NEAR GERMANTOWN, OH

LOCATION.--Lat 39°38'10", long 84°23'48", in NW 1/4 sec. 11, T.3 N., R.4 E., Montgomery County, Hydrologic Unit 05080002, on right bank 0.3 mi (0.5 km) downstream from Germantown Dam, 1.5 mi (2.4 km) northwest of Germantown, and 3 mi (5 km) upstream from Little Twin Creek.

DRAINAGE AREA.--275 mi² (712 km²).

PERIOD OF RECORD.--April 1914 to December 1923, December 1926 to current year.

REVISED RECORDS.--WSP 403: 1914(M). WSP 1385: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 700.24 ft (213.433 m) above mean sea level, adjustment of 1912. Prior to Dec. 18, 1926, nonrecording gage at site 1 mi (2 km) downstream at datum 12.49 ft (3.807 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Flood flow regulated by Germantown retarding basin, 0.3 mi (0.5 km) upstream beginning in 1920.

COOPERATION.--Gage-height charts, tapes and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--59 years (1914-23, 1927-77), 258 ft³/s (7.307 m³/s), 12.74 in/yr (324 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,390 ft³/s (266 m³/s) July 8, 1915, gage height, 11.7 ft (3.57 m), from graph based on gage readings, site and datum then in use; maximum gage height, 29.19 ft (8.897 m) Jan. 22, 1959; minimum discharge, 1.5 ft³/s (0.042 m³/s) Sept. 25, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913 reached a stage of 18.3 ft (5.58 m), original site and datum, discharge, 66,000 ft³/s (1,870 m³/s), computed by Miami Conservancy District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,460 ft³/s (155 m³/s) Apr. 3, gage height, 26.11 ft (7.958 m); minimum, 6.1 ft³/s (0.17 m³/s) Sept. 29, 30, but may have been less during period of ice effect Dec. 21 to Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	33	16	9.8	14	217	162	108	33	627	13	12
2	9.1	30	14	11	14	161	1590	108	30	373	12	11
3	8.1	26	14	12	14	146	4970	97	27	161	11	11
4	7.5	23	13	11	15	1680	1500	411	25	92	10	10
5	7.2	21	13	11	15	1140	851	493	24	64	9.5	9.7
6	7.8	19	13	11	15	495	566	447	26	48	9.0	9.2
7	9.1	17	14	11	15	316	422	917	24	40	9.5	8.7
8	9.5	16	15	11	17	232	334	523	25	35	14	8.2
9	9.9	15	14	11	21	187	261	319	40	33	20	7.8
10	10	14	13	12	28	157	226	234	32	29	39	7.4
11	10	14	13	12	33	134	196	185	31	27	31	6.7
12	10	13	12	12	69	249	167	153	31	26	29	6.5
13	11	12	12	12	568	1060	149	133	29	24	26	7.7
14	14	12	12	12	570	494	138	120	28	22	95	62
15	14	11	11	13	354	312	127	106	26	20	140	16
16	16	11	11	14	285	228	116	96	25	19	66	20
17	16	11	11	14	230	174	106	87	23	18	50	17
18	14	11	10	14	198	265	100	81	22	16	36	35
19	15	10	10	14	164	348	95	76	23	14	26	49
20	18	10	11	13	149	286	90	70	23	13	20	25
21	20	10	10	13	134	262	85	64	22	13	19	15
22	20	10	9.2	13	209	282	95	61	21	12	19	12
23	20	10	8.6	13	2220	264	109	60	22	13	16	10
24	29	9.5	8.2	13	1640	216	101	57	21	12	25	9.7
25	31	9.5	7.8	13	731	175	99	54	29	11	22	9.3
26	30	13	7.6	13	387	151	96	53	121	10	17	8.4
27	26	19	7.6	14	423	135	85	47	81	9.7	15	7.2
28	23	22	7.4	14	359	294	87	43	82	9.2	13	6.5
29	20	20	7.4	13	---	470	142	40	59	19	13	6.2
30	20	19	7.4	13	---	291	131	38	45	20	12	6.1
31	31	---	7.6	13	---	212	---	36	---	16	12	---
TOTAL	496.2	471.0	340.8	385.8	8891	11033	13196	5317	1050	1845.9	849.0	430.3
MEAN	16.0	15.7	11.0	12.4	318	356	440	172	35.0	59.5	27.4	14.3
MAX	31	33	16	14	2220	1680	4970	917	121	627	140	62
MIN	7.2	9.5	7.4	9.8	14	134	85	36	21	9.2	9.0	6.1
CFSM	.06	.06	.04	.05	1.16	1.30	1.60	.63	.13	.22	.10	.05
IN.	.07	.06	.05	.05	1.20	1.49	1.79	.72	.14	.25	.11	.06

CAL YR 1976 TOTAL 49988.5 MEAN 137 MAX 4560 MIN 5.1 CFSM .50 IN 6.76
WTR YR 1977 TOTAL 44306.0 MEAN 121 MAX 4970 MIN 6.1 CFSM .44 IN 5.99

03272700 SEVENMILE CREEK AT CAMDEN, OH

LOCATION.--Lat 39°37'45", long 84°38'40", Preble County, Hydrologic Unit 05080002, 0.3 mi (0.5 km) downstream from Beasley Run on right bank at downstream side of bridge on State Highway 725 in Camden.

DRAINAGE AREA.--69.0 mi² (179 km²).

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 818.57 ft (249.501 m) (levels by Miami Conservancy District) above mean sea level. Prior to Oct. 1, 1975 at same site at datum 3.02 ft (0.920 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Water-quality data collected at this site 1972 to 1974.

COOPERATION.--Gage-height charts, tapes and 9 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--6 years (1972-77), 68.2 ft³/s (1.931 m³/s), 13.42 in/yr (341 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,210 ft³/s (176 m³/s) June 22, 1974, gage height 13.25 ft (4.039 m), present datum from rating curve extended above 2,200 ft³/s (62.3 m³/s); minimum daily, 1.6 ft³/s (0.045 m³/s) July 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,340 ft³/s (123 m³/s) Apr. 2 (base 1,500 ft³/s), gage height 11.19 ft (3.411 m); minimum daily, 1.6 ft³/s (0.045 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	8.1	5.4	2.8	3.3	73	64	28	10	77	2.2	3.2
2	3.3	6.3	4.8	2.8	3.4	58	2040	28	8.8	37	2.1	2.9
3	2.9	5.4	4.5	2.8	3.5	105	799	25	7.8	18	1.9	2.9
4	2.8	4.8	4.2	2.9	3.5	674	307	118	7.8	11	2.1	2.5
5	3.0	4.6	4.0	3.5	3.5	298	214	108	7.8	8.3	4.0	2.5
6	4.0	4.3	5.4	4.4	3.5	158	145	110	12	6.9	2.1	2.4
7	6.2	4.0	6.8	4.1	3.5	110	117	272	7.4	5.7	1.9	4.5
8	3.8	3.8	5.6	4.0	3.5	86	89	145	8.3	6.1	5.3	4.3
9	3.6	3.9	4.6	3.9	3.7	74	72	88	15	6.1	9.3	3.1
10	3.4	3.8	5.4	3.8	4.2	64	65	64	9.3	4.9	4.6	2.8
11	3.0	3.8	6.0	3.7	5.6	55	57	52	6.9	4.9	3.4	2.2
12	3.0	3.8	6.0	3.6	108	195	48	43	6.5	4.9	8.3	2.0
13	3.1	3.7	5.2	3.5	229	313	44	42	6.1	4.0	4.0	2.7
14	2.9	4.0	5.2	3.7	86	149	40	37	6.5	2.7	67	6.2
15	2.9	3.8	5.4	4.0	53	108	36	32	6.1	2.2	27	5.1
16	3.0	4.1	5.2	3.8	38	82	33	28	4.9	2.1	11	11
17	2.9	4.0	5.4	3.7	31	69	31	24	4.6	1.9	15	9.1
18	2.9	4.1	5.2	3.6	27	125	29	23	4.9	1.7	6.1	10
19	3.2	4.0	5.4	3.5	24	107	27	22	4.6	1.7	4.0	13
20	5.3	3.9	5.4	3.4	22	105	27	18	4.9	1.7	3.2	6.7
21	6.6	3.8	4.5	3.3	20	92	25	17	4.3	1.6	3.7	3.2
22	4.3	3.8	4.0	3.3	99	107	35	16	4.6	4.3	5.7	3.0
23	4.3	3.9	3.6	3.2	347	89	35	16	5.3	2.7	4.9	2.8
24	14	3.9	3.4	3.2	527	74	30	15	4.6	2.1	8.8	2.7
25	8.5	4.0	3.3	3.2	197	65	29	15	5.3	2.1	6.1	2.4
26	5.7	9.9	3.2	3.4	118	59	27	13	17	1.7	3.7	2.3
27	4.5	14	3.1	3.3	160	56	24	12	8.8	1.9	3.4	2.2
28	4.0	9.0	3.0	3.2	101	156	35	11	11	1.7	2.9	2.1
29	3.8	6.8	3.0	3.2	---	138	48	10	11	2.2	2.7	2.0
30	4.5	6.0	2.9	3.2	---	98	33	18	8.3	6.9	4.9	2.1
31	13	---	2.9	3.2	---	76	---	13	---	2.9	4.0	---
TOTAL	142.0	153.3	142.0	107.2	2228.2	4018	4605	1463	230.4	238.9	235.3	123.9
MEAN	4.58	5.11	4.58	3.46	79.6	130	154	47.2	7.68	7.71	7.59	4.13
MAX	14	14	6.8	4.4	527	674	2040	272	17	77	67	13
MIN	2.8	3.7	2.9	2.8	3.3	55	24	10	4.3	1.6	1.9	2.0
CFSM	.07	.07	.07	.05	1.15	1.88	2.23	.68	.11	.11	.11	.06
IN.	.08	.08	.08	.06	1.20	2.17	2.48	.79	.12	.13	.13	.07

CAL YR 1976 TOTAL 14039.9 MEAN 38.4 MAX 1280 MIN 2.2 CFSM .56 IN 7.57
WTR YR 1977 TOTAL 13687.2 MEAN 37.5 MAX 2040 MIN 1.6 CFSM .54 IN 7.38

03274000 GREAT MIAMI RIVER AT HAMILTON, OH

LOCATION.--Lat 39°23'28", long 84°34'20", in NE 1/4 sec. 6, T.1 N., R.3 E., Butler County, Hydrologic Unit 05080002, on right bank 1,000 ft (305 m) downstream from Columbia Bridge at Hamilton, 3 mi (5 km) downstream from Four Mile Creek, and 4.3 mi (6.9 km) upstream from Pleasant Run.

DRAINAGE AREA.--3,630 mi^2 (9,402 km^2).

PERIOD OF RECORD.--January 1907 to June 1909 (fragmentary), January 1910 to September 1918, April 1927 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site 0.7 mi (1.1 km) upstream since 1911 are contained in reports of National Weather Service. Prior to October 1962, published as Miami River at Hamilton.

REVISED RECORDS.--WSP 803: 1936. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 499.98 ft (152.394 m) above mean sea level, adjustment of 1912. Prior to Apr. 12, 1927, nonrecording gage at site 0.7 mi (1.1 km) upstream at datum 64.65 ft (19.705 m) higher.

REMARKS.--Records good. Some regulation at low flow by industrial plants upstream from station. Flood flow regulated by five retarding basins upstream from station beginning in 1920 (see REMARKS for station numbers 03271500 and 03272000). Small diversion about 6 mi (10 km) upstream from gage for municipal supply of Hamilton. Diversion averaged 0.68 ft^3/s (0.019 m^3/s) in 1977 and is returned as sewage 1.4 mi (2.3 km) downstream from the station. The Miami and Erie Canal diverted water from the basin 1.7 mi (2.7 km) upstream from station until Nov. 1, 1930, when canal was abandoned; amount of diversion not know. Water-quality data collected at this site water years 1950, 1951, 1973. Water temperature data collected at this site October 1950 to September 1951, October 1957 to September 1976.

COOPERATION.--Gage-height charts, tapes and 12 discharge measurements furnished by Miami Conservancy District.

AVERAGE DISCHARGE.--46 years (1931-77), 3.185 ft^3/s (91.33 m^3/s), 11.92 in/yr (303 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 352,000 ft^3/s (9,970 m^3/s) Mar. 26, 1913, gage height, 38.5 ft (11.73 m), site and datum then in use, computed by Miami Conservancy District; maximum discharge since construction of five retarding basins upstream in 1922, 108,000 ft^3/s (3,059 m^3/s) Jan. 21, 1959 gage height 79.47 ft (24.222 m); minimum daily discharge, 155 ft^3/s (4.39 m^3/s) Sept 27, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,500 ft^3/s (694 m^3/s) Apr. 3, gage height, 66.38 ft (20.233 m); minimum daily, 323 ft^3/s (9.15 m^3/s) Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	864	614	385	380	4170	2460	1600	704	1380	524	450
2	577	710	602	385	385	2780	5980	1770	691	2120	470	465
3	540	647	589	406	421	2330	23200	1560	672	1230	457	446
4	505	647	627	522	432	8440	17900	3470	643	884	445	463
5	516	614	614	552	459	8630	12600	5820	602	727	451	421
6	552	595	558	552	470	6790	7990	5630	590	664	490	407
7	608	558	688	540	448	4650	5800	7470	632	626	530	472
8	528	552	718	528	443	3570	4690	5310	620	566	850	443
9	522	564	667	499	454	2850	3780	3670	635	585	927	447
10	558	577	627	522	510	2360	3190	2910	766	554	718	457
11	528	570	614	482	640	2000	2770	2510	835	581	589	459
12	534	558	614	432	1250	2750	2510	2130	952	581	994	430
13	534	534	546	470	2510	5750	2260	1830	813	545	942	421
14	516	534	487	421	2180	5140	2090	1660	1030	516	1100	876
15	528	516	482	448	2040	4080	1930	1510	804	496	949	1050
16	493	577	470	437	1450	3040	1800	1380	710	500	721	866
17	454	570	465	385	1070	2360	1690	1310	652	473	1450	1020
18	406	558	465	359	961	2860	1590	1230	609	441	749	840
19	454	558	454	323	890	3670	1550	1160	1050	466	572	1240
20	522	653	443	364	830	4490	1480	1100	687	440	516	1250
21	653	627	470	395	822	3860	1470	1040	617	437	494	811
22	595	627	499	395	1030	3900	1520	933	600	569	525	653
23	534	634	465	400	3460	3660	1740	670	606	587	531	596
24	830	640	476	390	9230	4190	1630	693	561	505	651	549
25	943	640	406	395	8240	3590	1650	681	570	445	680	540
26	741	660	406	432	5970	2910	1650	857	1180	409	560	522
27	653	943	390	443	4840	2360	1530	609	1090	409	522	486
28	627	749	385	432	4920	2640	1460	788	975	408	492	467
29	595	660	427	421	---	3200	2220	833	794	460	462	446
30	640	647	390	380	---	3810	1990	747	712	1220	469	445
31	979	---	348	353	---	3090	---	727	---	618	467	---
TOTAL	18267	18783	16006	13448	56735	119930	124140	64608	22602	20442	20297	18590
MEAN	589	626	516	434	2026	3869	4138	2084	753	659	655	619
MAX	979	943	718	552	9230	8630	23200	7470	1180	2120	1450	1290
MIN	406	516	348	323	380	2000	1460	727	561	408	445	407
CFSM	.16	.17	.14	.12	.56	1.07	1.14	.57	.21	.18	.18	.17
IN.	.19	.19	.16	.14	.58	1.23	1.27	.66	.23	.21	.21	.19

CAL YR 1976 TOTAL 833301 MEAN 2277 MAX 30300 MIN 348 CFSM .63 IN 8.54
WTR YR 1977 TOTAL 513838 MEAN 1408 MAX 23200 MIN 323 CFSM .39 IN 5.27

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH
NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION

LOCATION.--Lat 39°15'47", long 84°40'04", in N 1/2 sec. 34, R.1, T.2, Hamilton County, Hydrologic Unit 05080002, at Blue Rock Road bridge at New Baltimore, 6.4 mi (10.3 km) downstream from Indian Creek, and 14.3 mi (23.0 km) downstream from discharge station at Hamilton.

DRAINAGE AREA.--3,814 mi² (9,878 km²).

PERIOD OF RECORD.--July 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1966 to current year.
pH: March 1975 to current year.
WATER TEMPERATURES: July 1966 to current year.
DISSOLVED OXYGEN: July 1966 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Dissolved oxygen concentrations listed as 15.0 mg/L represent concentrations of 15.0 mg/L or higher due to instrument limitations. Samples were collected each month as part of the National Stream Quality Accounting Network. See records of daily discharge for station at Hamilton (station 0327400).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,160 micromhos Mar. 18, 1970; minimum, 230 micromhos May 24, 1968.
pH: Maximum recorded, 9.2 units Aug. 4, 1977; minimum recorded, 7.0 units June 19, 1975.
WATER TEMPERATURES: Maximum, 36.5°C July 15, 16, 21, 1977; minimum, 0.0°C on several days during winter months in 1970, 1971, 1977.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on many days during 1971, 1972, 1975, and 1977; minimum, 0.0 mg/L June 27, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,120 micromhos Feb. 1, 2; minimum, 375 micromhos Apr. 3.
pH: Maximum recorded, 9.2 units Aug. 4; minimum recorded, 7.1 units May 21.
WATER TEMPERATURES: Maximum, 36.5°C July 15, 16, 21, minimum, 0.0°C on several days during December to February
DISSOLVED OXYGEN: Maximum, 15.0 mg/L or higher on several days during April to August; minimum, 1.5 mg/L June 1

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT											
13...	1400	540	890	8.0	20.5	13	7.2	79	2600	1200	340
NOV											
09...	1500	653	875	8.0	10.0	--	8.3	73	1800	150	--
DEC											
07...	0930	673	880	7.9	6.0	--	8.1	65	5000	1500	--
JAN											
12...	1400	400	1020	8.0	.0	--	11.3	77	2700	1600	--
FEB											
09...	1000	437	1060	7.8	2.5	7	10.7	78	6900	1200	380
MAR											
08...	1200	3540	595	8.2	6.5	--	9.3	76	6800	9000	--
APR											
05...	1200	12600	510	7.6	11.0	85	9.7	87	16000	19000	230
MAY											
04...	1400	3790	690	8.0	20.0	--	5.9	64	28000	110000	--
JUN											
02...	1200	680	930	8.0	26.0	--	8.8	110	740	3800	--
JUL											
12...	1100	627	920	7.7	30.0	--	4.7	62	680	790	--
AUG											
09...	1130	789	890	8.0	28.0	75	4.9	62	12000	2800	290
SEP											
20...	1500	1080	745	7.8	22.5	--	5.3	60	6500	3000	--

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT											
13...	110	80	33	61	6.3	278	0	228	4.4	110	85
NOV											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC											
07...	--	--	--	--	--	--	--	--	--	--	--
JAN											
12...	--	--	--	--	--	--	--	--	--	--	--
FEB											
09...	110	87	39	77	7.2	322	0	264	8.2	120	110
MAR											
08...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	93	58	20	12	3.4	163	0	130	6.6	53	28
MAY											
04...	--	--	--	--	--	--	--	--	--	--	--
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	110	68	30	48	8.0	220	0	180	3.5	100	78
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL NITROGEN (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)
OCT											
13...	.7	7.5	548	521	5.4	2.2	7.6	34	.92	8.2	80000
NOV											
09...	--	--	--	--	2.6	2.1	4.7	21	.92	--	7000
DEC											
07...	--	--	--	--	3.0	2.0	5.0	22	.88	--	23000
JAN											
12...	--	--	--	--	2.7	3.9	6.6	29	.93	--	56000
FEB											
09...	.8	6.3	672	607	1.9	3.3	5.2	23	1.6	8.4	51000
MAR											
08...	--	--	--	--	6.4	2.4	8.9	39	.42	--	7700
APR											
05...	.2	7.2	345	262	7.2	2.4	9.6	43	.46	13	4400
MAY											
04...	--	--	--	--	2.8	3.2	6.0	27	.96	--	13000
JUN											
02...	--	--	--	--	3.9	1.5	5.4	24	.67	--	230000
JUL											
12...	--	--	--	--	3.2	2.4	5.6	25	1.2	--	--
AUG											
09...	.6	5.9	502	447	2.2	4.9	7.1	31	.62	8.0	--
SEP											
20...	--	--	--	--	3.9	1.7	5.6	25	.66	--	--

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

PESTICIDE ANALYSES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ATRAZINE (UG/L)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)
NOV										
09...	1500	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY										
04...	1400	ND	--	ND	--	ND	--	ND	--	ND
AUG										
09...	1130	ND	--	ND	--	ND	--	ND	--	ND

DATE	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)
NOV										
09...	ND	ND	ND	ND	ND	ND	1.1	ND	.6	ND
MAY										
04...	--	ND	--	ND	--	ND	--	ND	--	ND
AUG										
09...	--	ND	--	--	--	ND	--	ND	--	--

DATE	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	MALATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHOXYCHLOR (UG/L)
NOV										
09...	ND	ND	ND	ND	.1	ND	ND	ND	ND	ND
MAY										
04...	--	ND	--	ND	--	ND	--	ND	--	ND
AUG										
09...	--	ND	--	ND	--	ND	--	--	--	ND

DATE	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL TRITHION (UG/L)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL PARATHION (UG/L)	PARATHION IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL TOXAPHENE (UG/L)
NOV										
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY										
04...	--	ND	--	ND	--	ND	--	ND	--	ND
AUG										
09...	--	--	--	--	--	--	--	ND	--	ND

DATE	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MATERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MATERIAL (UG/KG)
NOV									
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY									
04...	--	ND	--	ND	--	ND	--	ND	--
AUG									
09...	--	--	--	ND	--	ND	--	ND	--

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

ANALYSES OF MINOR ELEMENTS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	1400	2	2	1	0	<10	<10	1	1	10	10	580
FEB 09...	1000	7	4	0	0	10	<10	0	0	10	10	260
APR 05...	1200	1	1	0	0	30	1	4	0	22	7	7400
AUG 09...	1130	2	1	0	0	20	2	2	0	19	3	3700

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 13...	40	22	7	90	60	<.5	<.5	0	0	90	10
FEB 09...	160	25	10	150	140	<.5	<.5	5	4	150	120
APR 05...	30	75	0	190	0	.0	.0	1	1	20	20
AUG 09...	10	19	0	130	10	.0	.0	7	4	110	20

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT 13...	1400	540	20.5	27	39
NOV 09...	1500	653	10.0	6	11
DEC 07...	0930	673	6.0	18	33
JAN 12...	1400	400	.0	30	32
FEB 09...	1000	437	2.5	13	15
MAR 08...	1200	3540	6.5	82	784
APR 05...	1200	12600	11.0	438	14900
MAY 04...	1400	3790	20.0	674	6900
JUN 02...	1200	680	26.0	24	44
JUL 12...	1100	627	30.0	88	149
AUG 09...	1130	789	28.0	31	66
SEP 20...	1500	1080	22.5	74	216

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	782	747	837	789	806	789	1040	966	1120	1090	609	584
2	783	762	849	818	834	798	1020	939	1120	1070	648	602
3	816	767	900	836	855	809	1030	947	1070	1010	674	647
4	860	806	873	795	902	828	1050	978	1080	1010	---	---
5	876	834	857	783	881	839	999	977	1090	1020	587	530
6	899	833	869	825	860	819	---	---	1100	1050	603	578
7	887	822	902	833	862	821	---	---	1100	1060	594	576
8	897	843	915	860	875	815	---	---	1080	1040	629	598
9	890	851	932	873	---	---	---	---	1060	1050	653	606
10	879	867	980	893	---	---	---	---	---	---	695	656
11	893	870	951	896	---	---	---	---	---	---	737	699
12	900	843	932	891	---	---	1020	992	---	---	734	728
13	911	864	939	876	876	867	1060	1020	---	---	---	---
14	912	869	944	890	885	866	1030	956	---	---	---	---
15	866	851	929	890	899	878	966	939	---	---	---	---
16	891	854	915	887	924	900	989	954	885	858	---	---
17	894	873	902	875	938	918	1020	992	897	866	725	713
18	909	879	903	876	945	920	1040	1010	911	879	723	641
19	902	885	905	879	942	923	1050	1040	884	855	723	693
20	905	897	923	881	968	945	---	---	864	843	695	665
21	903	855	909	894	965	948	---	---	873	842	662	636
22	906	873	912	902	966	942	---	---	---	---	657	641
23	891	881	905	888	968	932	---	---	662	624	665	642
24	888	747	905	888	972	966	---	---	629	525	686	668
25	822	801	900	885	972	932	---	---	528	513	680	669
26	840	795	893	866	963	944	1060	1040	513	506	---	---
27	---	---	887	855	981	960	1090	1040	552	515	---	---
28	---	---	887	873	995	963	1090	1040	594	552	681	675
29	809	791	887	849	987	980	1050	1010	---	---	692	674
30	801	771	848	807	1020	962	1070	1020	---	---	690	675
31	---	---	---	---	1030	963	1100	1050	---	---	704	692
MONTH	912	747	980	783	1030	789	1100	939	1120	506	737	530

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	702	686	773	747	936	890	863	768	995	941	1010	960
2	693	498	767	749	948	914	896	828	938	855	1030	1010
3	522	375	791	762	930	908	818	725	855	804	1030	1010
4	468	395	797	564	924	902	776	720	806	744	1030	1000
5	537	473	1060	590	923	905	767	753	849	758	1040	1020
6	584	542	686	614	936	908	821	770	899	825	1070	1020
7	620	587	684	542	947	927	828	774	948	903	1060	1040
8	642	621	669	624	954	939	866	791	965	774	1070	1040
9	662	644	725	674	944	851	866	848	953	704	1040	1020
10	695	644	749	728	951	894	930	885	992	936	1050	996
11	---	---	767	752	947	902	936	801	980	795	998	905
12	710	693	788	762	968	938	963	897	890	696	---	---
13	729	711	791	782	938	879	966	905	857	759	---	---
14	738	725	804	774	912	864	933	917	893	776	---	---
15	741	725	815	777	914	848	942	929	888	699	989	921
16	750	720	815	782	897	820	995	915	755	699	954	878
17	750	722	818	764	933	872	975	890	740	548	909	843
18	755	723	804	782	989	876	1030	911	713	584	837	761
19	750	735	833	803	939	914	1050	978	792	633	801	732
20	761	746	866	839	986	930	1060	995	867	795	776	737
21	821	708	986	869	996	968	1070	1010	893	858	789	765
22	833	803	882	879	977	920	1030	999	873	840	827	771
23	830	804	900	879	909	753	1030	1020	896	855	822	806
24	824	804	903	876	818	756	999	960	921	771	864	824
25	804	792	905	875	896	806	1050	1000	954	774	893	852
26	812	794	897	878	923	888	1050	989	956	935	918	881
27	821	804	905	885	731	656	1010	989	965	938	950	915
28	839	815	920	899	872	656	999	968	969	951	983	951
29	839	777	924	879	783	716	1020	963	978	956	995	974
30	839	774	915	788	869	791	977	956	959	936	1000	983
31	---	---	945	900	---	---	999	965	959	939	---	---
MONTH	839	375	1060	542	996	656	1070	720	995	548	1070	732
YEAR	1120	375										

03273600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.9	---	---	8.5	8.0	---	---	8.1	7.7	8.3	8.1
2	8.0	7.8	8.0	7.9	8.2	8.0	---	---	8.1	7.9	8.3	8.1
3	8.2	8.0	8.1	7.8	8.2	8.0	---	---	8.0	7.5	8.2	8.2
4	8.1	7.9	8.2	8.1	8.1	7.9	---	---	7.8	7.5	---	---
5	---	---	8.2	8.1	8.2	7.9	---	---	8.0	7.6	---	---
6	8.0	7.9	8.2	8.0	8.2	7.7	---	---	8.0	7.8	8.2	7.9
7	8.0	7.9	8.2	8.1	8.1	7.7	---	---	8.0	7.8	8.3	7.9
8	8.4	8.1	8.3	8.2	8.3	8.0	---	---	8.1	7.9	8.3	8.1
9	8.4	8.2	8.2	7.9	---	---	---	---	7.9	7.7	8.5	8.4
10	8.2	8.1	7.9	7.7	---	---	---	---	---	---	---	---
11	8.2	8.0	7.8	7.7	---	---	---	---	---	---	---	---
12	8.2	8.1	7.8	7.7	---	---	8.2	7.8	---	---	---	---
13	8.1	8.0	8.0	7.7	8.1	7.9	8.2	7.7	---	---	---	---
14	8.2	8.1	8.1	7.9	8.1	7.8	8.0	7.7	---	---	---	---
15	8.3	8.2	8.3	7.9	8.2	7.9	8.3	8.0	---	---	---	---
16	8.4	8.2	8.4	7.9	8.3	8.2	8.5	8.3	8.3	8.1	---	---
17	8.5	8.2	8.2	7.8	8.3	8.2	8.5	8.0	8.3	7.9	7.9	7.9
18	8.7	8.3	8.3	7.9	8.3	7.9	8.3	8.0	8.2	7.9	7.9	7.8
19	8.5	8.3	8.4	8.2	8.1	7.9	8.4	7.7	8.0	8.0	7.9	7.8
20	8.3	8.3	8.3	8.2	8.1	7.9	---	---	8.1	8.0	7.9	7.8
21	8.3	8.1	8.2	8.2	8.2	8.1	---	---	8.2	8.0	8.0	7.8
22	8.3	8.2	8.2	8.0	---	---	---	---	---	---	8.0	7.9
23	8.3	8.1	8.2	8.0	---	---	---	---	8.2	8.0	8.0	7.9
24	8.1	7.7	8.1	8.0	---	---	---	---	8.2	7.5	8.1	8.0
25	8.0	7.7	8.1	8.0	---	---	---	---	8.2	7.9	8.1	7.8
26	8.2	7.9	8.1	8.0	---	---	8.0	7.7	8.3	8.2	---	---
27	---	---	8.1	7.8	---	---	8.2	8.0	8.3	8.2	---	---
28	---	---	8.3	8.1	---	---	8.4	7.9	8.3	8.2	8.1	8.0
29	---	---	8.4	7.9	---	---	8.1	7.5	---	---	8.2	8.1
30	---	---	9.0	8.2	---	---	8.0	7.8	---	---	8.1	7.9
31	---	---	---	---	---	---	8.1	7.9	---	---	8.3	8.1
MONTH	8.7	7.7	9.0	7.7	8.5	7.7	8.5	7.5	8.3	7.5	8.5	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.3	8.1	7.9	7.7	7.9	7.8	7.7	7.5	8.5	7.9	---	---
2	8.2	7.7	7.9	7.7	8.0	7.8	7.8	7.5	8.8	7.9	---	---
3	7.8	7.5	---	---	8.0	7.9	7.8	7.5	9.1	8.4	8.2	7.8
4	7.9	7.7	---	---	8.1	7.8	7.8	7.5	9.2	8.4	8.3	7.9
5	8.1	7.9	---	---	8.1	7.8	7.8	7.7	9.0	8.2	8.2	7.9
6	---	---	---	---	7.9	7.7	7.9	7.6	8.9	8.0	8.3	7.9
7	---	---	---	---	8.0	7.8	7.8	7.4	8.7	8.4	8.2	7.9
8	---	---	---	---	7.9	7.8	7.8	7.5	8.3	7.8	8.4	8.0
9	---	---	---	---	8.0	7.7	7.8	7.6	8.0	7.7	8.4	8.1
10	---	---	8.1	7.7	7.9	7.7	7.7	7.6	8.0	7.7	8.6	8.0
11	---	---	8.1	7.5	7.9	7.7	7.8	7.5	8.1	7.8	8.0	7.4
12	8.1	8.0	8.0	7.5	7.9	7.6	8.0	7.3	7.9	7.9	---	---
13	8.2	8.1	8.0	7.5	7.8	7.5	8.5	7.9	7.9	7.8	---	---
14	8.4	8.1	8.2	7.5	7.8	7.6	8.8	8.2	7.8	7.6	---	---
15	8.6	8.2	8.3	7.7	7.8	7.6	8.6	8.4	7.9	7.6	8.1	7.9
16	---	---	8.5	7.8	7.8	7.5	8.4	8.1	8.0	7.6	8.0	7.7
17	---	---	8.4	7.8	7.8	7.5	8.2	7.8	8.0	7.5	7.8	7.7
18	---	---	8.3	7.9	7.9	7.5	7.9	7.4	8.1	7.8	7.8	7.6
19	---	---	8.2	7.6	8.0	7.7	7.9	7.4	8.1	7.8	7.8	7.7
20	---	---	7.9	7.3	7.9	7.6	8.0	7.6	8.3	7.9	7.9	7.8
21	8.7	8.6	7.6	7.1	7.9	7.7	8.1	7.6	8.2	8.0	8.0	7.9
22	8.6	8.4	7.5	7.4	7.9	7.8	8.2	7.5	8.3	8.0	8.0	7.8
23	8.1	7.9	7.8	7.5	7.9	7.8	7.8	7.5	8.4	8.0	8.0	7.9
24	8.0	7.8	7.9	7.5	7.9	7.6	8.5	8.0	8.2	8.0	7.9	7.8
25	8.0	7.8	7.8	7.6	8.0	7.6	8.3	7.9	8.6	8.4	8.0	7.9
26	8.1	7.8	7.8	7.6	7.8	7.7	8.4	7.9	8.6	8.1	8.2	7.9
27	8.1	7.8	7.8	7.6	7.8	7.6	8.4	7.8	8.7	8.3	8.4	8.0
28	8.0	7.8	7.7	7.5	7.8	7.6	8.7	7.9	---	---	8.5	8.2
29	8.0	7.8	7.8	7.5	7.8	7.5	8.4	8.0	---	---	8.5	8.2
30	8.0	7.8	7.8	7.5	7.8	7.5	8.0	7.9	---	---	8.6	8.2
31	---	---	7.8	7.6	---	---	8.2	7.9	---	---	---	---
MONTH	8.7	7.5	8.5	7.1	8.1	7.5	8.8	7.3	9.2	7.5	8.6	7.4
YEAR	9.2	7.1										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	17.5	---	---	5.5	3.5	0.5	0.0	0.5	0.0	5.5	4.0
2	21.0	17.5	12.5	10.5	5.0	3.5	1.0	0.0	0.0	0.0	6.0	3.5
3	21.5	17.5	13.0	11.0	4.5	3.0	2.0	0.5	1.0	0.0	5.5	5.0
4	21.0	16.5	10.5	9.5	6.5	4.5	4.5	2.0	3.5	1.0	---	---
5	24.0	18.0	9.5	8.5	5.5	4.0	5.0	3.5	4.0	2.0	7.5	7.0
6	21.5	18.5	10.0	8.0	5.5	4.5	---	---	2.5	0.5	7.0	5.5
7	18.5	16.0	10.5	8.5	6.5	5.0	---	---	2.5	0.0	7.0	5.5
8	17.5	16.0	9.0	7.5	5.0	3.5	---	---	3.0	0.0	8.5	5.5
9	17.0	14.5	10.0	7.5	---	---	---	---	2.5	1.5	10.0	7.0
10	17.0	13.5	11.0	8.5	---	---	---	---	---	---	11.5	8.5
11	17.5	14.0	10.0	8.5	---	---	---	---	---	---	13.5	10.0
12	19.5	14.0	10.0	8.0	---	---	0.5	0.0	---	---	13.5	13.5
13	20.5	17.5	10.0	7.5	7.0	5.0	0.5	0.0	---	---	---	---
14	19.5	16.0	9.5	7.0	7.0	5.0	0.5	0.0	---	---	---	---
15	19.5	16.5	9.5	7.0	8.0	5.5	2.5	0.5	---	---	---	---
16	18.0	15.0	10.0	6.5	6.5	5.5	1.5	0.0	4.5	3.5	---	---
17	16.5	13.5	10.0	7.5	7.5	5.0	0.0	0.0	4.5	1.5	13.0	12.5
18	15.5	12.0	10.0	8.5	8.5	5.5	0.0	0.0	5.5	4.0	12.5	10.5
19	14.5	12.5	10.5	8.5	9.0	6.5	0.0	0.0	6.0	5.0	11.0	9.5
20	13.5	13.0	10.5	8.5	9.0	6.5	---	---	6.0	5.5	10.5	9.0
21	13.5	11.5	9.0	7.5	6.5	4.0	---	---	6.0	4.5	10.0	8.0
22	12.5	10.5	8.0	7.0	5.0	3.5	---	---	---	---	10.0	8.5
23	11.0	10.0	7.5	6.5	4.5	2.5	---	---	7.0	6.5	10.5	8.0
24	12.5	10.5	6.5	6.0	3.5	1.5	---	---	6.5	4.5	10.5	8.0
25	13.0	12.0	8.5	6.0	4.0	2.5	---	---	5.0	3.5	12.5	8.0
26	13.0	11.0	10.0	8.5	4.0	2.5	5.0	3.0	5.0	4.5	---	---
27	---	---	11.0	10.0	4.0	1.5	3.0	1.5	5.0	4.5	---	---
28	---	---	10.0	7.0	5.0	3.5	2.0	0.0	5.0	3.5	14.5	13.0
29	---	---	6.5	4.5	4.0	3.0	0.0	0.0	---	---	17.0	13.5
30	---	---	5.0	3.5	3.5	1.5	1.0	0.0	---	---	19.0	16.0
31	---	---	---	---	2.5	0.0	0.5	0.0	---	---	17.0	14.5
MONTH	24.0	10.0	13.0	3.5	9.0	0.0	5.0	0.0	7.0	0.0	19.0	3.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	12.5	19.0	14.5	30.0	26.5	28.5	26.0	31.5	27.5	32.5	27.5
2	16.0	15.0	21.5	17.0	28.0	25.0	29.5	25.0	30.5	25.5	29.5	29.0
3	15.0	13.5	21.0	19.0	28.0	24.0	29.0	24.5	31.0	26.0	33.0	29.0
4	14.5	12.5	20.5	18.5	29.5	24.0	30.5	25.5	31.0	26.5	31.0	26.0
5	12.0	10.0	21.5	18.5	28.0	26.0	---	---	31.5	27.5	31.0	27.5
6	10.0	8.5	22.0	20.5	28.5	24.5	33.0	29.5	32.0	27.5	30.5	27.5
7	12.0	8.0	20.5	18.0	25.5	22.5	33.5	30.5	30.5	28.0	31.0	27.5
8	12.0	10.0	20.5	17.0	23.0	21.0	33.5	30.0	28.0	25.5	31.0	26.0
9	12.5	9.5	18.5	15.5	23.0	19.5	---	---	28.5	26.0	30.5	25.5
10	15.5	10.5	18.5	14.5	24.0	20.0	27.5	25.5	28.5	27.0	29.5	24.5
11	---	---	20.0	14.5	25.0	23.0	28.0	24.5	30.0	26.5	24.0	21.0
12	20.0	18.5	20.5	16.0	26.5	22.5	30.5	29.0	27.5	25.5	---	---
13	21.5	17.5	23.0	17.5	28.0	24.5	33.0	28.0	26.5	25.0	---	---
14	22.5	18.5	24.5	19.0	28.0	26.0	33.0	30.0	29.0	25.5	---	---
15	23.0	19.5	26.0	20.5	30.5	26.0	36.5	31.5	29.5	26.5	23.0	22.0
16	23.5	19.5	26.5	22.0	31.5	26.0	36.5	32.0	30.0	28.0	24.5	23.0
17	23.0	20.0	27.5	22.5	33.0	29.5	35.0	31.5	28.5	26.5	25.0	23.0
18	24.0	20.0	29.0	24.5	32.0	29.0	35.0	30.5	27.5	24.5	26.0	23.5
19	23.0	21.5	31.0	25.5	30.5	28.0	35.5	31.0	27.0	24.0	25.5	24.0
20	24.5	21.0	31.5	26.5	31.5	28.0	36.0	31.5	28.0	24.0	24.0	21.5
21	23.5	22.5	32.0	27.5	32.0	20.0	36.5	32.0	25.5	23.5	21.5	19.5
22	21.5	20.5	30.0	28.0	28.5	25.0	34.0	30.0	27.0	23.0	22.5	18.5
23	20.5	18.5	30.0	26.5	27.0	24.0	30.0	28.0	27.0	24.0	23.5	20.5
24	20.0	17.0	31.0	27.0	29.0	26.0	32.0	27.5	26.5	23.5	23.5	22.0
25	16.5	13.0	30.0	27.5	30.0	26.0	31.0	28.5	26.0	22.5	23.5	20.5
26	15.5	11.5	30.5	26.5	28.5	26.0	31.0	25.5	26.5	23.0	25.5	21.5
27	18.0	12.5	31.0	26.5	29.0	26.0	30.0	24.5	29.5	25.0	24.5	21.0
28	17.0	14.0	31.0	27.5	31.5	27.5	30.5	24.0	31.0	26.5	23.0	19.5
29	16.0	11.0	31.5	28.5	29.5	26.0	28.0	26.0	29.0	27.0	22.5	18.0
30	17.5	12.5	30.5	25.0	29.0	25.5	26.0	25.5	30.0	26.0	23.5	18.0
31	---	---	32.5	29.0	---	---	30.0	27.5	31.5	27.0	---	---
MONTH	24.5	8.0	32.5	14.5	33.0	19.5	36.5	24.0	32.0	22.5	33.0	18.0
YEAR	36.5	0.0										

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OH--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.1	4.1	---	---	8.4	7.8	---	---	11.8	10.5	11.8	11.1
2	7.2	4.7	8.5	6.6	8.4	7.6	---	---	11.6	10.3	11.7	11.0
3	7.9	5.3	7.8	6.8	8.3	7.5	---	---	10.2	8.7	11.2	10.8
4	8.1	5.7	7.8	6.8	8.0	7.3	---	---	10.5	8.6	---	---
5	8.3	5.9	7.8	7.0	8.7	7.5	---	---	10.9	8.3	9.1	5.5
6	6.7	4.7	8.6	7.1	8.9	7.6	---	---	11.1	8.4	9.8	9.1
7	6.2	4.0	8.0	5.9	8.2	6.7	---	---	12.8	9.5	9.6	9.1
8	7.7	3.7	7.5	5.9	7.9	6.3	---	---	12.7	10.1	9.6	9.0
9	---	---	8.1	5.9	---	---	---	---	10.7	9.8	9.1	8.5
10	---	---	7.4	6.1	---	---	---	---	---	---	8.0	6.8
11	---	---	6.5	5.6	---	---	---	---	---	---	7.8	6.8
12	8.5	6.6	7.1	5.5	---	---	11.3	10.7	---	---	6.9	6.8
13	7.8	4.9	7.7	5.6	9.6	7.2	11.2	9.8	---	---	---	---
14	8.0	4.8	8.4	5.7	9.4	7.3	10.5	9.6	---	---	---	---
15	9.7	5.6	8.6	5.8	9.1	6.9	10.7	9.5	---	---	---	---
16	9.9	5.7	9.0	6.0	7.7	6.5	10.8	9.3	10.8	10.6	---	---
17	10.7	6.4	8.7	6.5	9.0	6.6	11.3	10.0	10.6	10.1	---	---
18	13.6	7.5	8.9	6.3	8.5	6.3	11.1	10.2	10.1	9.4	9.7	8.5
19	11.9	7.9	8.6	6.0	9.0	6.1	10.6	9.8	9.4	8.7	10.2	8.8
20	8.0	7.0	8.2	6.0	7.0	5.6	---	---	9.2	8.3	9.6	8.5
21	9.2	5.7	7.0	6.1	7.8	5.7	---	---	9.0	8.5	10.3	9.2
22	9.3	6.7	7.3	6.2	---	---	---	---	---	---	9.9	9.3
23	8.8	7.6	8.6	6.5	---	---	---	---	10.2	9.4	9.6	9.0
24	7.7	6.3	7.8	7.2	---	---	---	---	10.6	9.4	10.3	8.9
25	7.1	6.2	8.3	6.9	---	---	---	---	11.5	9.2	9.9	9.3
26	7.9	6.6	6.9	6.0	---	---	10.0	8.4	11.5	10.8	---	---
27	---	---	5.8	5.2	---	---	10.2	8.3	11.6	10.9	---	---
28	---	---	6.5	5.6	---	---	10.8	8.9	11.8	11.2	9.1	8.2
29	---	---	7.7	6.5	---	---	11.2	9.3	---	---	9.1	7.8
30	---	---	8.4	7.5	---	---	12.1	10.1	---	---	8.7	7.3
31	---	---	---	---	---	---	12.6	10.6	---	---	9.6	7.2
MONTH	13.6	3.7	9.0	5.2	9.6	5.6	12.6	8.3	12.8	8.3	11.8	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.8	7.8	8.1	5.8	10.4	4.5	5.9	3.3	---	---	10.2	3.9
2	8.6	7.4	9.8	5.8	10.7	5.1	4.8	3.1	---	---	4.4	3.0
3	7.9	6.5	9.0	5.9	15.0	5.6	4.2	3.3	---	---	9.7	3.0
4	9.0	7.9	6.9	5.4	15.0	6.6	4.7	3.9	15.0	11.7	9.7	2.8
5	9.3	8.7	7.2	5.9	14.2	7.1	4.3	3.4	15.0	6.9	9.1	2.9
6	9.6	9.1	6.3	6.0	14.7	6.5	5.2	2.9	15.0	6.2	9.6	3.0
7	9.4	8.7	7.1	6.3	15.0	5.3	5.9	2.8	12.1	4.6	9.4	2.6
8	9.1	8.6	7.5	7.1	15.0	4.7	6.7	3.3	6.8	3.2	11.6	3.7
9	9.2	8.4	8.1	7.1	15.0	6.5	4.2	3.0	6.8	2.7	12.3	4.4
10	9.0	8.5	8.4	7.6	10.7	5.1	4.8	3.4	5.8	2.7	14.3	3.6
11	---	---	9.0	7.1	---	---	5.9	3.3	6.8	2.7	12.0	3.7
12	8.2	7.4	9.4	7.3	---	---	9.3	3.4	4.1	2.8	---	---
13	8.8	6.9	10.7	6.8	---	---	14.1	4.3	5.1	2.7	---	---
14	10.0	6.6	13.4	6.4	---	---	15.0	5.7	6.3	2.1	---	---
15	12.0	6.6	12.2	6.2	---	---	15.0	6.1	7.3	2.7	7.9	5.7
16	13.8	7.0	15.0	5.6	4.6	1.9	10.9	5.0	7.8	3.2	8.0	3.8
17	15.0	7.2	15.0	6.9	4.5	1.5	7.2	3.3	6.0	2.7	6.6	3.2
18	15.0	7.1	12.8	5.8	4.8	1.9	8.3	2.6	7.0	4.0	6.9	3.5
19	12.1	6.8	10.1	4.6	4.1	1.9	11.4	3.0	7.7	3.7	5.1	3.6
20	12.3	6.2	7.1	4.8	6.6	2.1	12.6	3.5	9.2	4.2	5.7	3.8
21	11.6	6.9	7.1	4.4	9.2	2.5	12.7	3.5	7.2	4.7	6.3	4.3
22	9.4	6.1	---	---	6.0	3.6	13.3	3.1	8.9	4.5	6.8	4.7
23	8.2	5.6	10.2	5.5	8.0	3.2	6.6	3.1	9.3	4.6	8.2	4.7
24	8.0	5.7	10.9	5.6	7.6	4.2	15.0	6.2	7.7	3.9	6.8	4.2
25	8.3	5.9	9.8	5.3	7.5	3.7	11.2	1.9	11.6	4.2	7.5	4.5
26	10.0	6.8	10.9	5.4	4.9	3.3	13.7	1.6	11.6	4.4	10.4	4.8
27	9.7	6.8	11.2	5.8	6.6	2.9	13.9	3.9	13.0	5.8	11.1	5.6
28	7.8	6.4	9.5	5.3	4.2	2.3	14.2	5.0	15.0	5.6	11.4	5.9
29	8.4	6.1	8.8	5.0	4.9	2.3	---	---	8.9	4.9	12.7	6.5
30	8.7	6.5	7.4	3.7	6.1	3.2	---	---	8.6	3.4	13.8	6.7
31	---	---	9.3	3.7	---	---	---	---	11.5	3.7	---	---
MONTH	15.0	5.6	15.0	3.7	15.0	1.5	15.0	1.6	15.0	2.1	14.3	2.6
YEAR	15.0	1.5										

As the number of streams on which discharge and chemical quality data information is likely to be desired far exceeds the number of stations feasible to operate at one time, the Geological Survey collects limited data at sites other than regular stations. When limited data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are useable in low-flow or floodflow analyses, depending on the type data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two parts. Given first are records of discharge measurements and chemical-quality data made at low flow sites followed by a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow and chemical quality data in the area covered by this report made at low-flow partial-record stations are given in the following section. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The "PERIOD OF RECORD" paragraph shows the water years in which measurements were made at the same, or practically the same, site.

03092099 HINKLEY CREEK AT CHARLESTOWN, OH

LOCATION.--Lat 41°09'16", long 81°08'51", Portage County, Hydrologic Unit 05030103, at bridge on Rock Spring Road, 0.6 mi (0.9 km) south of Charlestown, 2.2 mi (3.5 km) upstream from mouth.

DRAINAGE AREA.--7.85 mi^2 (20.33 km^2).

REMARKS.--Also operated as a crest-stage partial-record station.

PERIOD OF RECORD.--Discharge, water years 1969 to current year; chemical analyses, water years 1970 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
12...	1615	.46	570	7.4	25.5	6.4	210	58	15	32	2.4	172

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
12...	0	42	61	.2	8.7	385	.01	.01	.05	.04	210	400

03109100 MIDDLE FORK LITTLE BEAVER CREEK NEAR ROGERS, OH

LOCATION.--Lat 40°43'22", long 80°38'03", Columbiana County, Hydrologic Unit 05030101, at bridge on State Highway 7, 0.4 mi (0.6 km) upstream from West Fork Little Beaver Creek, 5 mi (8 km) south of Rogers.

DRAINAGE AREA.--149 mi^2 (386 km^2).

PERIOD OF RECORD.--Discharge, water years 1972 to July 1977 (discontinued); chemical analyses, water years 1971 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
14...	0925	68	680	7.9	23.0	7.8	290	82	20	26	3.8	142

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
14...	0	150	37	.3	5.3	395	.67	.01	.01	.13	50	70

03109200 WEST FORK LITTLE BEAVER CREEK AT WEST POINT, OH

LOCATION.--Lat 40°42'38", long 80°41'49", Columbiana County, Hydrologic Unit 05030101, at bridge on U.S. Highway 30, 0.3 mi (0.5 km) downstream from Patterson Creek, at West Point.

DRAINAGE AREA.--99.9 mi² (258.7 km²).

PERIOD OF RECORD.--Discharge, water years 1959, 1972 to current year; chemical analyses, water years 1971 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
14...	1515	23	595	8.0	27.0	9.0	270	75	19	14	3.1	98

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
14...	0	130	31	.2	5.9	327	6.0	.14	.00	.04	50	120

03109400 NORTH FORK LITTLE BEAVER CREEK NEAR NEGLEY, OH

LOCATION.--Lat 40°46'30", long 80°32'36", Columbiana County, Hydrologic Unit 05030101, at county road bridge at Achor, 0.5 mi (0.8 km) downstream from Bull Creek, 1.1 mi (1.8 km) south of Negley.

DRAINAGE AREA.--166 mi² (430 km²).

PERIOD OF RECORD.--Discharge, water years 1959, 1972 to current year; chemical analyses, water years 1971 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
14...	0840	108	1000	7.7	21.5	5.0	460	130	33	34	3.5	176

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
14...	0	250	87	.2	6.9	632	.43	.02	.04	.06	60	300

ISLAND CREEK BASIN

03110850 ISLAND CREEK NEAR TORONTO, OH

LOCATION.-- Lat 40°25'44", long 80°37'00", Jefferson County, Hydrologic Unit 05030101, at boat ramp on State Highway 7, below Little Island Creek, and 2 mi (3 km) south of Toronto.

DRAINAGE AREA.--26.4 mi2 (68.4 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
13...	1505	7.4	1000	8.2	27.5	9.1	530	150	37	16	3.2	159

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
13...	0	370	21	.1	7.1	683	.14	.01	.08	.01	10	10

LITTLE MUSKINGUM RIVER BASIN

03115300 LITTLE MUSKINGUM RIVER NEAR RINARD MILLS, OH

LOCATION.--Lat 39°36'25", long 81°07'21", Monroe County, Hydrologic Unit 05030201, at bridge on County Road 68, 1.5 mi (2.4 km) upstream from Straight Fork, 2.3 mi (3.7 km) northeast of Rinard Mills.

DRAINAGE AREA.--130 mi² (337 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1971 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
13...	1820	4.8	375	7.9	27.5	6.8	170	51	10	21	2.4	141

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
13...	0	26	51	.1	3.9	235	.06	.00	.04	.01	10	50

DUCK CREEK BASIN

03115650 EAST FORK DUCK CREEK AT LOWER SALEM, OH

LOCATION.--Lat 39°34'26", long 81°23'25", Washington County, Hydrologic Unit 05030201, at bridge on Township Road 319, 0.9 mi (1.4 km) northeast of Lower Salem, 1.0 mi (1.6 km) upstream from Pawpaw Creek.

DRAINAGE AREA.--111 mi² (287 km²).

PERIOD OF RECORD.--Discharge, water years 1959, 1972 to July 1977 (discontinued); chemical analyses, water years 1971 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 14...	0855	23	915	7.0	23.5	7.9	440	120	33	9.5	2.8	31

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 14...	0	420	10	.2	11	625	.23	.01	.06	.03	0	3300

MUSKINGUM RIVER BASIN

03115890 TUSCARAWAS RIVER AT UNIONTOWN, OH

LOCATION.--Lat 40°59'18", long 81°24'04", Stark County, Hydrologic Unit 05040001, at culvert on Pontius Street, 0.9 mi (1.4 km) north of Uniontown.

DRAINAGE AREA.--8.26 mi (21.39 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 14...	2040	3.1	882	8.3	22.5	6.9	390	120	23	23	2.6	284

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 14...	2	120	45	.1	11	487	.61	.02	.04	.17	60	100

MUSKINGUM RIVER BASIN

03115900 TUSCARAWAS RIVER NEAR EAST LIBERTY, OH

LOCATION.--Lat 41°00'25", long 81°29'31", Summit County, Hydrologic Unit 05040001, at bridge on Arlington Road, 2.3 mi (3.7 km) north of East Liberty.

DRAINAGE AREA.--33.1 mi² (85.7 km²).

PERIOD OF RECORD.--Discharge, water years 1960 to 1967, 1969 to current year; chemical analyses, water years 1965 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 14...	1940	22	585	8.4	25.5	7.2	270	80	18	17	2.5	203

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 14...	2	75	33	.1	9.6	338	.52	.02	.04	.10	360	90

03115920 TUSCARAWAS RIVER AT BARBERTON, OH

LOCATION.--Lat 41°01'40", long 81°35'15", Summit County, Hydrologic Unit 05040001, at bridge on East State Street in Barberton.

DRAINAGE AREA.--72.5 mi² (187.8 km²).

PERIOD OF RECORD.--Discharge, water years 1947, 1951, 1974 to current year; chemical analyses, water years 1974 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 14...	1615	a/23	835	8.4	29.0	12.6	320	96	20	50	2.6	212

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 14...	4	100	90	.1	11	479	.08	.01	.12	.02	220	210

a/ Discharge includes both Tuscarawas River and Ohio Canal.

MUSKINGUM RIVER BASIN

03115990 WOLF CREEK NEAR BARBERTON, OH

LOCATION.--Lat 41°02'56", long 81°36'00", Summit County, Hydrologic Unit 05040001, at bridge on Summit Road, 200 ft (61 m) downstream from mouth of Pigeon Creek, 2.5 mi (4.0 km) north of Barberton.

DRAINAGE AREA.--53.9 mi^2 (139.6 km^2).

PERIOD OF RECORD.--Discharge, water years 1950, 1960 to 1961, 1974 to current year; chemical analyses, water years 1974 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
14...	1810	8.7	690	8.2	27.0	8.8	250	78	13	38	3.3	201

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
14...	0	68	50	.2	7.2	377	.26	.03	.15	.10	220	110

03116075 CHIPPEWA CREEK AT SEVILLE, OH

LOCATION.--Lat 41°00'36", long 81°51'53", Medina County, Hydrologic Unit 05040001, at bridge on State Highway 3 in Seville.

DRAINAGE AREA.--44.0 mi^2 (114.0 km^2).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN												
28...	1530	1.8	710	7.5	23.0	4.8	290	88	18	33	4.2	254

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN												
28...	0	92	53	.1	6.7	420	.12	.02	.39	.08	70	50

MUSKINGUM RIVER BASIN

03116080 CHIPPEWA CREEK AT STERLING, OH

LOCATION.--Lat 40°57'24", long 81°50'31", Wayne County, Hydrologic Unit 05040001, at bridge on County Road 60, 0.8 mi (1.3 km) south of Sterling.

DRAINAGE AREA.--64.4 mi² (166.8 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water year 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
JUN 28...	1630	3.4	730	8.5	29.0	14.1	280	83	18	41	4.8	200

DATE	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
JUN 28...	12	110	56	.1	2.1	426	.35	.23	.21	.32	130	100

03116410 NIMISILA CREEK NEAR CANAL FULTON, OH

LOCATION.--Lat 40°54'57", long 81°33'43", Summit County, Hydrologic Unit 05040001, at bridge on State Highway 93, 2.5 mi (4.0 km) northeast of Canal Fulton, Stark County.

DRAINAGE AREA.--23.1 mi² (59.8 km²).

PERIOD OF RECORD.--Discharge, water years 1960 to 1961, 1974 to current year; chemical analyses, water years 1974 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
JUL 14...	1250	7.2	415	7.9	21.0	7.4	240	69	16	14	1.8	219

DATE	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
JUL 14...	0	31	30	.1	9.9	280	.29	.01	.05	.05	120	150

MUSKINGUM RIVER BASIN

03116950 NEWMAN CREEK NEAR MASSILLON, OH

LOCATION.--Lat 40°49'22", long 81°33'06", Stark County, Hydrologic Unit 05040001, at bridge on Beaumont Avenue, 1.9 mi (3.1 km) upstream from mouth, 2 mi (3 km) northwest of Massillon.

DRAINAGE AREA.--38.2 mi² (98.9 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
JUN 28...	0940	3.2	735	7.8	23.5	6.8	300	79	24	34	6.2	257

DATE	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
JUN 28...	0	98	49	.2	5.5	423	.17	.01	.07	.06	140	240

03117150 SANDY CREEK AT MINERVA, OH

LOCATION.--Lat 40°43'53", long 81°05'57", Stark County, Hydrologic Unit 05040001, at bridge on U.S. Highway 30 in Minerva.

DRAINAGE AREA.--61.9 mi² (160.3 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
JUN 28...	1615	12	505	8.2	24.0	10.3	190	55	12	18	2.9	166

DATE	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
JUN 28...	0	60	26	.2	3.0	259	.20	.01	.03	.03	110	80

MUSKINGUM RIVER BASIN

03117160 STILL FORK NEAR MINERVA, OH

LOCATION.--Lat 40°39'49", long 81°02'24", Carroll County, Hydrologic Unit 05040001, at bridge on State Highway 9, 1.4 mi (2.3 km) downstream from Pipes Fork, 5.5 mi (8.8 km) southeast of Minerva, Stark County.

DRAINAGE AREA.--36.2 mi² (93.8 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1745	5.0	270	6.8	24.0	7.9	87	22	7.8	17	2.4	94

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	23	9.0	.2	3.1	134	.19	.01	.04	.11	1700	320

03117280 HUGLE RUN NEAR MALVERN, OH

LOCATION.--Lat 40°42'49", long 81°09'03", Carroll County, Hydrologic Unit 05040001, at bridge on private road, 1,000 ft (300 m) upstream from mouth, 2.2 mi (3.5 km) northeast of Malvern.

DRAINAGE AREA.--21.3 mi² (55.2 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1510	5.8	530	7.8	19.5	9.5	230	70	13	10	2.1	176

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	76	17	.1	9.6	285	.01	.01	.01	.00	220	130

MUSKINGUM RIVER BASIN

03117300 SANDY CREEK AT MALVERN, OH

LOCATION.--Lat 40°41'27", long 81°10'50", Carroll County, Hydrologic Unit 05040001, at bridge on State Highway 43 and 183, in Malvern.

DRAINAGE AREA.--163 mi² (422 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1315	41	530	7.7	21.5	6.8	190	57	12	20	3.0	162

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	60	30	.1	6.3	269	.25	.04	.09	.19	260	230

03117310 PIPE RUN AT MALVERN, OH

LOCATION.--Lat 40°41'16", long 81°11'02", Carroll County, Hydrologic Unit 05040001, at bridge in Malvern, 200 ft (60 m) upstream from mouth.

DRAINAGE AREA.--27.7 mi² (71.7 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1415	.89	510	7.4	22.5	8.0	170	45	14	21	3.1	68

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	110	33	.2	6.2	268	.26	.00	.04	.05	1600	140

MUSKINGUM RIVER BASIN

03117450 LITTLE SANDY CREEK NEAR ROBERTSVILLE, OH

LOCATION.--Lat 40°44'03", long 81°14'40", Stark County, Hydrologic Unit 05040001, at bridge on Hillchurch-Wynnfield Drive, 0.7 mi (1.1 km) downstream from Black Run, 3.5 mi (5.6 km) southwest of Robertsville, and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--29.7 mi² (76.9 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1130	6.9	800	7.6	18.5	8.2	330	98	21	24	3.2	180

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	170	48	.2	9.7	464	.15	.00	.04	.01	230	700

03118100 EAST BRANCH NIMISHILLEN CREEK NEAR CANTON, OH

LOCATION.--Lat 40°49'24", long 81°17'55", Stark County, Hydrologic Unit 05040001, at bridge on Broadway Avenue, 1 mi (1.6 km) east of Canton city limits, 3.5 mi (5.6 km) upstream from Middle Branch.

DRAINAGE AREA.--33.4 mi² (86.5 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 27...	1640	5.7	1600	8.1	26.5	14.5	320	94	20	210	52	160

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 27...	0	250	150	13	9.1	878	41	.42	.64	.50	250	550

MUSKINGUM RIVER BASIN

03118300 WEST BRANCH NIMISHILLEN CREEK AT CANTON, OH

LOCATION.--Lat 40°47'48", long 81°23'26", Stark County, Hydrologic Unit 05040001, at bridge on Sixth Street, 1.3 mi (2.1 km) upstream from mouth at Canton

DRAINAGE AREA.--43.9 mi^2 (113.7 km^2).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 27...	1520	11	880	8.3	27.0	15.5	320	92	21	46	3.1	211

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 27...	3	110	88	.2	2.5	470	.08	.01	.04	.05	170	80

03119580 TUSCARAWAS RIVER AT ZOAR, OH

LOCATION.--Lat 40°36'28", long 81°25'36", Tuscarawas County, Hydrologic Unit 05040001, at bridge on County Road 82, 0.5 mi (0.8 km) southwest of Zoar, 3 mi (5 km) upstream from Conotton Creek.

DRAINAGE AREA.--1,102 mi^2 (2,854 km^2).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 29...	0900	392	1500	7.8	22.0	5.6	440	140	23	130	6.6	222

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 29...	0	170	280	.3	8.8	869	3.4	.37	.38	.60	470	440

MUSKINGUM RIVER BASIN

03119900 CONOTTON CREEK AT LEESVILLE, OH

LOCATION.--Lat 40°26'44", long 81°11'49", Carroll County, Hydrologic Unit 05040001, at bridge on State Highway 164, 0.9 mi (1.4 km) southeast of Leesville, 2.5 mi (4.0 km) upstream from McGuire Creek.

DRAINAGE AREA.--87.1 mi^2 (225.6 km^2).

PERIOD OF RECORD.--Discharge, water years 1959, 1972 to current year; chemical analyses, water years 1971 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 13...	0945	53	310	7.5	22.0	7.2	190	51	14	17	3.2	95

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 13...	0	93	26	.1	10	261	.86	.02	.05	.10	80	100

03121600 CONOTTON CREEK AT NEW CUMBERLAND, OH

LOCATION.--Lat 40°32'30", long 81°18'27", Tuscarawas County, Hydrologic Unit 05040001, at bridge on State Highway 212, 0.4 mi (0.6 km) southwest of New Cumberland, 3.0 mi (4.8 km) downstream from Indian Fork.

DRAINAGE AREA.--250 mi^2 (648 km^2).

PERIOD OF RECORD.--Discharge, water years 1935, 1965, 1974 to current year; chemical analyses, water years 1964, 1965, 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1900	148	315	7.4	19.0	7.8	100	28	7.7	12	2.3	68

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	48	21	.1	7.7	162	.27	.01	.10	.03	590	600

LOW-FLOW PARTIAL-RECORD STATIONS

MUSKINGUM RIVER BASIN

03122850 SUGAR CREEK NEAR ORRVILLE, OH

LOCATION.--Lat 40°48'43", long 81°45'56", Wayne County, Hydrologic Unit 05040001, at bridge on State Highway 57, 2 mi (3 km) south of Orrville.

DRAINAGE AREA.--47.2 mi² (122.2 km²).

PERIOD OF RECORD.--Discharge, water years 1959, 1976 to current year; chemical analyses, water year 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
11...	1315	9.1	385	8.0	23.5	7.6	240	65	20	27	5.0	181

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
11...	0	62	52	.2	8.2	329	4.7	.08	.16	.22	30	280

03122900 SUGAR CREEK NEAR WEST LEBANON, OH

LOCATION.--Lat 40°44'12", long 81°39'12", Wayne County, Hydrologic Unit 05040001, at bridge on county road, 1.1 mi (1.8 km) northeast of West Lebanon.

DRAINAGE AREA.--69.8 mi² (180.8 km²).

PERIOD OF RECORD.--Discharge, water years 1973, 1976 to current year; chemical analyses, water year 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL												
11...	1500	15	315	8.2	26.5	8.6	230	62	18	23	5.6	181

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL												
11...	0	53	47	.1	8.9	307	4.2	.09	.07	.15	30	240

MUSKINGUM RIVER BASIN

03124520 SUGAR CREEK AT DOVER, OH

LOCATION.--Lat 40°31'40", long 81°29'43", Tuscarawas County, Hydrologic Unit 05040001, at bridge on State Highway 39, 0.2 mi (0.3 km) west of Dover city limits, 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--348 mi² (901 km²).

PERIOD OF RECORD.--Discharge, water years 1940, 1974 to current year; chemical analyses, water years 1974 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 11...	1055	144	680	7.7	23.5	7.8	320	77	30	17	6.4	113

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 11...	0	210	34	.2	9.2	441	2.2	.07	.07	.13	10	1600

03127100 CROOKED CREEK NEAR STILLWATER, OH

LOCATION.--Lat 40°18'29", long 81°19'26", Tuscarawas County, Hydrologic Unit 05040001, at bridge on State Highway 258, 0.7 mi (1.1 km) upstream from mouth, 1.2 mi (1.9 km) southwest of Stillwater.

DRAINAGE AREA.--47.5 mi² (123.0 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUNE 27...	1635	2.8	--	--	--	--	--	--	--	--	--	--
JUL 12...	1600	6.2	420	7.7	23.5	7.3	170	48	12	36	3.7	120

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUNE 27...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 12...	0	30	84	.1	4.2	277	.34	.02	.10	.07	20	190

MUSKINGUM RIVER BASIN

03128600 LITTLE STILLWATER CREEK NEAR DENNISON, OH

LOCATION.--Lat 40°24'19", long 81°17'18, Tuscarawas County, Hydrologic Unit 05040001, at county road bridge, 1.3 mi (2.1 km) upstream from Irish Run, 2.5 mi (4.0 km) east of Dennison.

DRAINAGE AREA.--96.4 mi² (249.7 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water year 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 29...	1900	49	685	7.7	21.0	8.2	300	79	24	13	2.5	114

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 29...	0	200	17	.1	5.0	399	.04	.01	.05	.07	650	1200

03128700 TUSCARAWAS RIVER AT TUSCARAWAS, OH

LOCATION.--Lat 40°23'37", long 81°23'26", Tuscarawas County, Hydrologic Unit 05040001, at bridge on County Road 62, 0.4 mi (0.6 km) east of Tuscarawas, 2.6 mi (4.2 km) downstream from Stillwater Creek.

DRAINAGE AREA.--2,367 mi² (6,130 km²).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 29...	1640	914	1200	7.8	25.0	9.0	370	110	23	90	6.2	144

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 29...	0	210	190	.3	6.5	709	1.2	.05	.09	.28	1300	740

MUSKINGUM RIVER BASIN

03129100 WHITE EYES CREEK NEAR FRESNO, OH

LOCATION.--Lat 40°18'17", long 81°45'01", Coshocton County, Hydrologic Unit 05040001, at bridge on private road adjacent to State Highway 93, 2 mi (3.2 km) south of Fresno.

DRAINAGE AREA.--52.1 mi^2 (134.9 km^2).

PERIOD OF RECORD.--Discharge, water years 1972 to current; chemical analyses, water years 1972 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 27...	1430	2.9	360	7.2	25.0	7.5	160	44	12	13	3.8	112

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 27...	0	76	18	.2	6.3	229	.31	.01	.08	.03	100	450

03129150 TUSCARAWAS RIVER AT COSHOCTON, OH

LOCATION.--Lat 40°16'48", long 81°52'15", Coshocton County, Hydrologic Unit 05040001, at bridge on Bridge Street at Coshocton city limits, 0.3 mi (0.5 km) upstream from confluence with Walhonding River.

DRAINAGE AREA.--2,596 mi^2 (6,724 km^2).

PERIOD OF RECORD.--Discharge, water years 1974 to current year; chemical analyses, water years 1974 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 29...	1215	930	1050	8.9	24.5	13.6	340	100	21	80	4.8	120

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 29...	10	180	160	.5	.6	617	.61	.02	.11	.16	430	170

MUSKINGUM RIVER BASIN

03134300 MUDDY FORK NEAR ROWSBURG, OH

LOCATION.--Lat 40°50'10", long 82°08'16", Ashland County, Hydrologic Unit 05040002, at bridge on Township Road 1550, 1.8 mi (2.9 km) southeast of Rowsburg.

DRAINAGE AREA.--66.2 mi^2 (171.5 km^2).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 26...	0930	9.0	640	7.5	20.0	6.4	250	71	18	30	4.0	280

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 26...	0	76	46	.2	8.4	352	1.7	.03	.09	.09	40	60

03138790 KILLBUCK CREEK AT BURBANK, OH

LOCATION.--Lat 40°59'24", long 81°59'41, on Wayne-Medina County Line, Hydrologic Unit 05040003, at bridge on State Highway 83 at Burbank.

DRAINAGE AREA.--42.4 mi^2 (109.8 km^2).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1400	1.6	810	7.6	24.0	6.7	370	110	24	33	5.2	272

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	150	43	.2	6.4	506	.84	.02	.16	.26	50	140

MUSKINGUM RIVER BASIN

03138800 KILLBUCK CREEK AT WOOSTER, OH

LOCATION.--Lat 40°48'03", long 81°58'30", Wayne County, Hydrologic Unit 05040003, at bridge on Old Mansfield Road, 2 mi (3 km) northwest of Wooster.

DRAINAGE AREA.--128 mi² (332 km²).

PERIOD OF RECORD.--Discharge, water years 1959, 1962 to 1967, 1970 to June 1977 (discontinued); chemical analyses, water years 1965 to 1967, 1970 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1200	8.1	635	7.6	23.0	6.6	290	80	21	20	4.3	222

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	110	33	.1	6.5	384	.28	.01	.04	.11	50	90

03138820 APPLE CREEK AT WOOSTER, OH

LOCATION.--Lat 40°48'13", long 81°54'20", Wayne County, Hydrologic Unit 05040003, at bridge on Hillcrest Road, 0.5 mi (0.8 km) upstream from Little Apple Creek, at Wooster.

DRAINAGE AREA.--33.7 mi² (87.3 km²).

PERIOD OF RECORD.--Discharge, water years 1959,1976 to current year; chemical analyses, water years 1976 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 28...	1300	6.6	525	7.9	24.0	9.4	220	50	18	21	3.6	224

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 28...	0	43	33	.2	5.2	295	.26	.01	.04	.21	30	30

MUSKINGUM RIVER BASIN

03146250 NORTH FORK LICKING RIVER ABOVE NEWARK, OH

LOCATION.--Lat 40°06'19", long 82°25'02", Licking County, Hydrologic Unit 05040006, at American Aggregates Plant, 1.3 mi (2.1 km) downstream from Dry Creek, 1.5 mi (2.4 km) upstream from Newark Water Supply Plant.

DRAINAGE AREA.--224 mi² (580 km²).

PERIOD OF RECORD.--Discharge, water years 1944, 1964, 1972 to September 1977 (discontinued); chemical analyses, water years 1972 to September 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 15...	1115	47	600	8.0	18.5	8.5	300	81	24	8.9	2.4	257
SEPT 7...	1735	24	--	--	--	--	--	--	--	--	--	--

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 15...	0	75	17	.1	7.6	343	3.5	.04	.03	.00	20	30
SEPT 7....	--	--	--	--	--	--	--	--	--	--	--	--

03140450 JONATHAN CREEK AT EAST FULTONHAM, OH

LOCATION.--Lat 39°51'20", long 82°07'35", Muskingum County, Hydrologic Unit 05040004, at bridge on old U.S. Highway 22, at East Fultonham, 1 mi (2 km) upstream from Buckeye Fork.

DRAINAGE AREA.--125 mi² (324 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 14...	1050	17	660	8.0	19.5	8.0	270	69	24	21	3.4	151
SEPT 7....	1540	7.9	--	--	--	--	--	--	--	--	--	--

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 14...	0	130	44	.1	3.2	369	.48	.01	.05	.01	70	60
SEPT 7....	--	--	--	--	--	--	--	--	--	--	--	--

MUSKINGUM RIVER BASIN

03150480 WEST BRANCH WOLF CREEK NEAR WATERFORD, OH

LOCATION.--Lat 39°31'43", long 81°39'22", Washington County, Hydrologic Unit 05040004, adjacent to State Highway 339, 400 ft (122 m) upstream from South Branch, 1.2 mi (1.9 km) southwest of Waterford.

DRAINAGE AREA.--144 mi² (373 km²).

PERIOD OF RECORD.--Discharge, water years 1959, 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 10...	1400	34	--	--	--	--	--	--	--	--	--	--
JUL 14...	1300	45	420	8.0	27.5	10.1	160	43	12	19	4.3	128

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	0	54	25	.1	5.1	226	.45	.01	.12	.05	10	110

03150490 SOUTH BRANCH WOLF CREEK NEAR WATERFORD, OH

LOCATION.--Lat 39°31'28", long 81°39'31", Washington County, Hydrologic Unit 05040004, at bridge on State Highway 339, 0.8 mi (1.3 km) upstream from mouth, 1.5 mi (2.4 km) southwest of Waterford.

DRAINAGE AREA.--79.3 mi² (205.4 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 10...	1510	11	--	--	--	--	--	--	--	--	--	--
JUL 14...	1200	1.8	425	7.9	26.0	7.8	190	57	11	9.2	2.8	184

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	0	37	10	.1	5.7	223	.15	.01	.04	.05	0	10

CAMPAIGN CREEK BASIN

03160105 CAMPAIGN CREEK NEAR GALLIPOLIS, OH

LOCATION.--Lat 39°53'51", long 82°11'31", Gallia County, Hydrologic Unit 05030202, at bridge on Bulaville-Porter Road, 5.6 mi (9.0 km) upstream from mouth, 5.8 mi (9.3 km) north of Gallipolis.

DRAINAGE AREA.--35.5 mi^2 (91.9 km^2).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
MAY 31...	1835	0.81	--	--	--	--	--	--	--	--	--	--
JUL 05...	1400	3.5	583	7.3	25.5	8.1	240	63	20	15	3.2	91

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
MAY 31...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	0	190	10	.2	8.0	356	.26	.01	.04	.01	0	1900

INDIAN GUYAN CREEK BASIN

03205210 INDIAN GUYAN CREEK NEAR BRADRICK, OH

LOCATION.--Lat 38°28'41", long 82°23'54", Lawrence County, Hydrologic Unit 05090101, at bridge on Township Road C-69, 200 ft (61 m) upstream from relocated Fourmile Creek, 2.5 mi (4.0 km) north of Bradrick.

DRAINAGE AREA.--67.5 mi^2 (174.8 km^2).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUNE 01...	1035	2.8	--	--	--	--	--	--	--	--	--	--
JUL 05...	1625	13	378	7.5	24.5	7.6	150	45	9.0	9.0	3.0	73

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUNE 01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	0	91	6.5	.1	7.7	207	.88	.01	.02	.01	10	90

ICE CREEK BASIN

03216050 ICE CREEK AT IRONTON, OH

LOCATION.--Lat 38°31'05", long 82°38'09", Lawrence County, Hydrologic Unit 05090103, at bridge on private road, 0.6 mi (1.0 km) east of city limits of Ironton, 2 mi (3 km) upstream from mouth.

DRAINAGE AREA.--37.2 mi² (96.3 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUNE 01...	1200	1.9	--	--	--	--	--	--	--	--	--	--
JUL 05...	1805	7.9	450	7.6	24.5	7.7	180	51	12	13	3.7	108

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUNE 05...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	0	94	12	.1	10	249	.59	.01	.02	.01	20	130

PINE CREEK BASIN

03216640 PINE CREEK NEAR WHEELERSBURG, OH

LOCATION.--Lat 38°39'12", long 82°48'09", Scioto County, Hydrologic Unit 05090103, at bridge on Junior Furnace-Powellsville Road, 1.7 mi (2.7 km) upstream from Poplar Fork, 6 mi (10 km) southeast of Wheelersburg.

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 05...	1930	42	378	7.2	23.5	7.4	150	41	11	6.9	3.4	44

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 05...	0	110	6.8	.1	11	212	.61	.01	.07	.03	50	500

SCIOTO RIVER BASIN

03228200 BIG WALNUT CREEK ABOVE SUNBURY, OH

LOCATION.--Lat 40°15'04", long 82°50'46", Delaware County, Hydrologic Unit 05060001, at bridge on U.S. Highway 36, 0.5 mi (0.8 km) downstream from Perfect Creek, at Sunbury.

DRAINAGE AREA.--77.8 mi² (201.5 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 15...	1400	2.8	580	8.5	23.0	11.3	270	65	26	17	3.8	229
SEPT 08...	0925	0.14	--	--	--	--	--	--	--	--	--	--

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 15...	8	73	27	.3	1.6	335	1.2	.01	.13	.04	40	30
SEPT 08...	--	--	--	--	--	--	--	--	--	--	--	--

03234080 NORTH FORK PAINT CREEK NEAR FRANKFORT, OH

LOCATION.--Lat 39°26'11", long 83°13'22", Ross County, Hydrologic Unit 05060003, at bridge on State Highway 138 at Austin, 3.5 mi (5.6 km) northwest of Frankfort.

DRAINAGE AREA.--151 mi² (391 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 16...	1500	12	--	--	--	--	--	--	--	--	--	--
JUL 07...	1525	6.2	565	8.1	31.5	8.7	320	65	39	9.5	2.0	315

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 16...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	0	59	21	.4	7.0	358	.52	.01	.06	.05	0	20

SCIOTO RIVER BASIN

03235100 SALT CREEK AT LAURELVILLE, OH

LOCATION.--Lat 39°27'46", long 82°44'08", Hocking County, Hydrologic Unit 05060002, at bridge on Township Road 174, 200 ft (61 m) upstream from Brimstone Creek, 0.5 mi (0.8 km) south of Laurelville.

DRAINAGE AREA.--106 mi² (274 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to June 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUN 07...	1030	14	430	7.9	15.5	9.5	220	55	20	6.4	2.3	222

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUN 07...	0	34	10	.1	6.6	244	.52	.02	.00	.01	30	50

03237130 SCIOTO BRUSH CREEK AT OTWAY, OH

LOCATION.--Lat 37°51'43", long 83°11'24", Scioto County, Hydrologic Unit 05060002, at bridge on State Highway 348, 600 ft (183 m) upstream from South Fork, at Otway.

DRAINAGE AREA.--94.4 mi² (244.5 km²).

PERIOD OF RECORD.--Discharge, water years 1956, 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 10...	1635	11	--	--	--	--	--	--	--	--	--	--
MAY 23...	1850	7.3	--	--	--	--	--	--	--	--	--	--
JUL 06...	0900	21	345	7.3	22.5	6.6	140	29	17	5.6	3.0	68

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 10...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06...	0	42	7.2	.1	10	188	1.2	.01	.04	.00	10	80

SCIOTO RIVER BASIN

03237150 SOUTH FORK SCIOTO BRUSH CREEK AT WAMSLEY, OH

LOCATION.--Lat 38°49'54", 83°16'42", Adams County, Hydrologic Unit 05060002, at bridge on State Highway 348, at Wamsley.

DRAINAGE AREA.--56.1 mi² (145.3 km²).

PERIOD OF RECORD.--Discharge, water years 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 10...	1545	16	--	--	--	--	--	--	--	--	--	--
MAY 23...	1750	6.0	--	--	--	--	--	--	--	--	--	--
JUL 06...	1030	10	275	7.3	23.5	6.2	120	25	13	3.9	2.9	92

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 10...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06...	0	42	3.8	.1	10	146	1.1	.01	.04	.01	20	90

OHIO BRUSH CREEK BASIN

03237295 OHIO BRUSH CREEK NEAR PEEBLES, OH

LOCATION.--Lat 38°58'06", long 83°25'38", Adams County, Hydrologic Unit 05090201, at bridge on State Highway 32, 1.6 mi (2.6 km) upstream from Little East Fork, 1.7 mi (2.7 km) northwest of Peebles.

DRAINAGE AREA.--158 mi² (399 km²).

PERIOD OF RECORD.--Discharge, water years 1959 to 1960, 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 06...	1345	16	490	7.9	28.5	7.6	230	54	23	5.1	3.3	223

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 06...	0	39	13	.1	8.0	255	3.7	.04	.05	.05	20	10

OHIO BRUSH CREEK BASIN

03237400 WEST FORK OHIO BRUSH CREEK AT LAWSHE,OH

LOCATION.--Lat 38°56'22", long 83°28'28", Adams County, Hydrologic Unit 05090201, at bridge on Township Road C-13 at Lawshe, 0.4 mi (0.6 km) upstream from mouth.

DRAINAGE AREA.--134 mi^2 (347 km^2).

PERIOD OF RECORD.--Discharge, water years 1959 to 1960, 1972 to current year; chemical analyses, water years 1972 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
JUL 06...	1515	9.6	470	8.0	27.0	8.4	210	59	15	7.0	3.7	204

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JUL 06...	0	34	14	.1	6.2	253	2.8	.03	.06	.06	0	30

BIG THREEMILE CREEK BASIN

03238020 BIG THREEMILE CREEK NEAR ABERDEEN, OH

LOCATION.--Lat 38°40'22", long 83°44'52", Brown County, Hydrologic Unit 05090201, at bridge on State Highway 763, 1.4 mi (2.3 km) northeast of Aberdeen, and 4.4 mi (7.1 km) upstream from mouth.

DRAINAGE AREA.--19.7 mi^2 (51.0 km^2).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 11...	1445	1.7	--	--	--	--	--	--	--	--	--	--
MAY 23...	1615	.28	--	--	--	--	--	--	--	--	--	--
JUL 06...	1715	1.8	435	8.2	30.5	8.6	190	59	11	8.1	3.0	180

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06...	0	43	15	.1	3.2	231	.22	.01	.01	.02	0	10

STRAIGHT CREEK BASIN

03238250 STRAIGHT CREEK NEAR HIGGINSPORT, OH

LOCATION.--Lat 38°47'56", long 83°48'20", Brown County, Hydrologic Unit 05090201, at bridge on Straight Creek Road, 2.8 mi (4.5 km) upstream from mouth, and 3 mi (5 km) east of Higginsport.

DRAINAGE AREA.--57.3 mi² (148.4 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water year 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA+MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 11...	1310	6.7	--	--	--	--	--	--	--	--	--	--
MAY 24...	1555	.64	--	--	--	--	--	--	--	--	--	--
JUL 06...	0915	3.2	395	7.9	27.0	7.3	180	52	11	8.1	3.4	168

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 24	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06...	0	40	13	.1	2.1	213	.09	.00	.04	.03	0	10

BULLSKIN CREEK BASIN

03238650 BULLSKIN CREEK NEAR FELICITY, OH

LOCATION.--Lat 38°48'02", long 84°03'21", Clermont County, Hydrologic Unit 05090201, at bridge on Felicity Cedron Road, just upstream from unnamed tributary on left bank, 0.3 mi (0.5 km) downstream from Slickaway Run, and 3.3 mi (5.3 km) southeast of Felicity.

DRAINAGE AREA.--47.7 mi² (123.5 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water years 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
NOV 11...	1205	6.9	--	--	--	--	--	--	--	--	--	--
MAY 24...	1450	1.1	--	--	--	--	--	--	--	--	--	--
JUL 06...	2040	2.7	370	8.3	33.0	7.9	150	42	11	9.2	3.6	133

DATE	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
NOV 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06...	2	45	15	.1	4.8	198	.14	.01	.03	.01	0	10

INDIAN CREEK BASIN

03238730 INDIAN CREEK NEAR POINT PLEASANT, OH

LOCATION.--Lat 38°53'24", long 84°12'29", Clermont County, Hydrologic Unit 05090201, at bridge on State Highway 232, 1.4 mi (2.3 km) east of Point Pleasant, 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--38.7 mi² (100.8 km²).

PERIOD OF RECORD.--Discharge, water year 1976 to current year; chemical analyses, water years 1976 to July 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
MAY 24...	1350	1.4	--	--	--	--	--	--	--	--	--	--
JUL 06...	1920	2.3	435	8.2	32.5	7.5	180	52	11	13	3.7	156

DATE	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
MAY 24...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06...	0	52	19	.1	4.3	232	.03	.01	.02	.01	10	10

DISCHARGE AT PARTIAL-RECORD STATIONS

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1977

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi²)	Period of record	Date	Gage height (feet)	Discharge (ft³/s)
		Beaver River basin					
03089500	Mill Creek near Berlin Center, OH	Lat 41°00'01", long 80°58'07", Mahoning County, Hydrologic Unit 05030103, at bridge on county road, 1 mile upstream from flow line of Berlin Reservoir, 1.2 miles upstream from Turkeybroth Creek, 2 miles southwest of Berlin Center.	19.1	1942-71≠, 1972-77	4- 2-77	6.05	740
*03092099	[illegible]inkley Creek at Charlestown, OH	Lat 41°09'16", long 81°08'51", Portage County, Hydrologic Unit 05030103, at bridge on Rock Spring Road, 0.6 mile south of Charlestown, 2.2 miles upstream from mouth.	7.85	1970-77	3-18-77	12.13	450
03094900	Walnut Creek at Cortland, OH	Lat 41°19'49", long 80°43'28", Trumbull County, Hydrologic Unit 05030103, at Main Street Bridge in Cortland, 1.8 miles upstream from mouth.	8.45	1947-77	3-13-77	3.52	430
03098500	Mill Creek at Youngstown, OH	Lat 41°04'19", long 80°41'26", Mahoning County, Hydrologic Unit 05030103, 600 ft upstream from suspension bridge in Mill Creek Park at Youngstown, 1 mile downstream from Newport Dam, 2.5 miles upstream from mouth.	66.3	1944-71≠, 1972-77	6-18-77	4.64	1,630
03098700	Crab Creek at Youngstown, OH	Lat 41°07'20", long 80°38'08", Mahoning County, Hydrologic Unit 05030103, at bridge on Hubbard Road at Youngstown, 2 miles upstream from mouth.	14.0	1959-77	4- 2-77	5.98	670
03102900	Clear Creek at Dilworth, OH	Lat 41°26'45", long 80°39'56", Trumbull County, Hydrologic Unit 05030102, at bridge on State Highway 193 at Dilworth, 1.1 miles south of Gustavus, 3 miles upstream from mouth.	1.13	1947-77	2- 24-77	9.96	51
		Little Beaver Creek basin					
03109000	Lisbon Creek at Lisbon, OH	Lat 40°46'55", long 80°45'53", Columbiana County, Hydrologic Unit 05030101, at city water works of Lisbon, 800 feet upstream from bridge on State Highway 164.	6.19	1947-62≠, 1963-77	8- 7-77	3.97	410
		Duck Creek basin					
03115600	Barnes Run near Summerfield, OH	Lat 39°46'20", long 81°22'26", Noble County, Hydrologic Unit 05030201, at bridge on county road adjacent to State Highway 78, 2.5 miles southwest of Summerfield.	3.46	1947-77	4- 3-77	10.91	289
		Muskingum River basin					
03119600	Jefferson Creek near Jewett, OH	Lat 40°22'57", long 80°58'36", Harrison County, Hydrologic Unit 05040001, at culvert adjacent to State Highway 9, 1.4 miles northeast of Jewett.	2.54	1947-77	4- 3-77	10.23	70
03119700	Conotton Creek at Jewett, OH	Lat 40°21'59", long 81°00'13", Harrison County, Hydrologic Unit 05040001, at bridge on State Highway 9 in Jewett.	14.3	1947-77	6-18-77	11.82	490
03123400	Dundee Creek at Dundee, OH	Lat 40°35'35", long 81°36'13", Tuscarawas County, Hydrologic Unit 05040001, at culvert on State Highway 93, 0.4 mile upstream from mouth, 0.5 mile northeast of Dundee.	.71	1966-77	7- 5-77	27.37	285
03129300	Whetstone Creek tributary near Olivesburg, OH	Lat 40°53'15", long 82°24'25", Ashland County, Hydrologic Unit 05040002, at culvert on State Highway 96, 1.1 miles east of Olivesburg.	.24	1950-77	9-14-77	5.22	40

See footnotes at end of table, p 417.

Annual maximum discharge at crest-stage partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		Muskingum River basin--Continued					
03138900	Jennings Ditch tributary near Wooster, OH	Lat 40°44'45", long 81°55'48", Wayne County, Hydrologic Unit 05040003, at culvert on State Highway 83, 0.8 mile upstream from mouth, 4 miles south of Wooster.	.90	1946, 1966-77	4- 3-77	17.94	46
03144800	Etna Creek at Etna, OH	Lat 39°58'08", long 82°40'55", Licking County, Hydrologic Unit 05040006, at culvert on State Highway 310, 0.7 mile north of Etna.	1.10	1966-77	3- 7-77	11.06	98
03145600	Otter Fork near Centerburg, OH	Lat 40°17'35", long 82°43'09", Knox County, Hydrologic Unit 05040006, at culvert on State Highway 3, 1.2 miles west of Centerburg.	3.17	1947-77	4- 3-77	12.39	130
03147900	Timber Run near Zanesville, OH	Lat 39°57'00", long 82°03'07", Muskingum County, Hydrologic Unit 05040006, at bridge on private road adjacent to old U.S. Highway 40, 0.5 mile west of junction of Interstate 70 with old U.S. Highway 40, 2 miles west of Zanesville.	10.1	1947-77	4- 2-77	11.78	700
03148300	Moxahala Creek at Roseville, OH	Lat 39°48'38", long 82°04'13", Muskingum County, Hydrologic Unit 05040004, at pumping station about 2,500 feet downstream from First Street bridge in Roseville.	80.6	1964-77	4- 4-77	10.47	1,570
03150600	Tupper Creek at DeVola, OH	Lat 39°28'24", long 81°27'58", Washington County, Hydrologic Unit 05040004, at culvert on State Highway 60 at DeVola.	.99	1966-77	4- 3-77	8.96	80
		Hocking River basin					
03158100	Hayden Run at Haydenville, OH	Lat 39°28'57", long 82°19'06", Hocking County, Hydrologic Unit 05030204, at culvert on U.S. Highway 33, 0.5 mile east of Haydenville.	1.04	1966-77	4- 3-77	22.47	115
		Scioto River basin					
03221900	Dry Run at Columbus, OH	Lat 39°57'22", long 83°06'19", Franklin County, Hydrologic Unit 05060001, at culvert in Westinghouse employees parking lot at entrance to plant, 1,000 ft north of U.S. Highway 40, near west edge of Columbus.	1.91	1965-77	9- 3-77	21.12	450
03226200	Delaware Run near Delaware, OH	Lat 40°18'28", long 83°06'35", Delaware County, Hydrologic Unit 05060001, at culvert on county highway, 400 feet south of State Highway 37, 1 mile west of Delaware Corporation line.	5.84	1947-77	4- 3-77	12.12	490
03226850	Linworth Run near Linworth, OH	Lat 40°06'24", long 83°02'35", Franklin County, Hydrologic Unit 05060001, at culvert on Linworth Road, 0.4 mile upstream from mouth, 1.2 miles north of Linworth.	.40	1966-77	3-12-77	18.84	51
03226890	Turkey Run at Upper Arlington, OH	Lat 40°02'10", long 83°04'06", Franklin County, Hydrologic Unit 05060001, at culvert on Lytham Road at Upper Arlington.	.90	1972-77	9- 3-77	17.15	270
03226900	Fishinger and Kenny Road Creek at Upper Arlington, OH	Lat 40°01'27", long 83°02'38", Franklin County, Hydrologic Unit 05060001, at culvert on Kenny Road at Upper Arlington.	.45	1964-77	9- 3-77	19.15	259
03228000	Scioto Big Run at Briggsdale, OH	Lat 39°54'56", long 83°03'55", Franklin County, Hydrologic Unit 05060001, at bridge on U.S. Highway 62 at Briggsdale 2.8 miles northeast of Grove City, 4 miles upstream from mouth.	11.0	1947-58[illegible], 1959-77	9- 3-77	7.15	1,180
03230400	Big Darby Creek at Darbydale, OH	Lat 39°50'56", long 83°11'20", Franklin County, Hydrologic Unit 05060001, at McKinley Bridge at Darbydale.	449	1964-77	4- 3-77	12.93	6,800
03230600	Hominy Creek at Circleville, OH	Lat 39°35'26", long 82°55'25", Pickaway County, Hydrologic Unit 05060002, at bridge adjacent to State Highway 56, 0.4 mile southeast of railroad crossing at east edge of Circleville.	5.66	1947-77	3-13-77	4.41	315

See footnotes at end of table, p 417.

Annual maximum discharge at crest-stage partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Scioto River basin--Continued					
03231600	East Fork Paint Creek near Sedalia, OH	Lat 39°42'36", long 83°27'48", Madison County, Hydrologic Unit 05060003, at culvert on State Highway 38, 1.8 miles southeast of Sedalia.	3.82	1947-77	-	<10.80	<95
03234100	Indian Creek at Massieville, OH	Lat 39°15'42", long 82°58'08", Ross County, Hydrologic Unit 05060002, at bridge adjacent to U.S. Highway 23, 0.2 mile south of Massieville.	9.60	1947-77	4- 3-77	12.32	1,220
03235000	Salt Creek at Tarlton, OH	Lat 39°33'20", long 82°46'51", Pickaway County, Hydrologic Unit 05060002, at bridge on State Highway 159 at Tarlton.	11.5	1947-61‡, 1962-77	-	<59.00	<350
03235200	Little Blackjack Branch near South Bloomingville, OH	Lat 39°27'23", long 82°30'25", Hocking County, Hydrologic Unit 05060002, at culvert on State Highway 664, 5.5 miles northeast of South Bloomingville.	.89	1966-77	3-18-77	20.08	140
03235400	West Branch Tar Hollow Creek at Tar Hollow State Park, OH	Lat 39°23'35", long 82°45'12", Ross County, Hydrologic Unit 05060002, in Tar Hollow State Park, 300 feet upstream from Tar Hollow Creek, 5 miles south of Adelphi.	.30	1950-77	3-18-77	5.07	21
03235995	Salt Creek above damsite near Londonderry, OH	Lat 39°17'26", long 82°44'45", Vinton County, Hydrologic Unit 05060002, at bridge on State Highway 671, 0.5 mile east of Ross County line, 2.8 miles northeast of Londonderry.	268	1963-77	4- 3-77	12.75	6,900
03236100	South Branch Little Salt Creek at Jackson, OH	Lat 39°02'38", long 82°38'35", Jackson County, Hydrologic Unit 05060002, at culvert adjacent to State Highway 139, 800 feet south of Jackson High School, 1 mile upstream from mouth.	3.76	1947-77	3-13-77	14.63	440
03237210	Rose Run near Portsmouth, OH	Lat 38°48'07", long 82°59'03", Scioto County, Hydrologic Unit 05060002, at culvert on U.S. Highway 23, 2.9 miles north of Portsmouth city limits.	1.04	1966-77	3-13-77	15.11	76
		Ohio Brush Creek basin					
03237300	West Branch Turkey Run near Winchester, OH	Lat 38°56'56", long 83°40'19", Adams County, Hydrologic Unit 05090201, at culvert on State Highway 32, 1.3 miles west of Winchester.	.89	1956-77	-	<11.20	<110
		Whiteoak Creek basin					
03238400	Harwood Creek near Fayetteville, OH	Lat 39°07'51", long 83°51'00", Highland County, Hydrologic Unit 05090201, at culvert on State Highway 131, 0.2 mile west of junction of State Highways 131 and 134, 6 miles southeast of Fayetteville.	.88	1966-77	3- 4-77	19.38	140
03238600	Higgins Run near Higginsport, OH	Lat 38°49'10", long 83°57'28", Brown County, Hydrologic Unit 05090201, at culvert on State Highway 221, 150 feet upstream from mouth, 2 miles north of Higginsport.	.55	1966-77	10- 9-76	22.02	590
		Ray Run basin					
03238700	Ray Run near Moscow, OH	Lat 38°51'15", long 84°12'00", Clermont County, Hydrologic Unit 05090201, at culvert on State Highway 743, 1.5 miles east of Moscow.	.86	1966-77	10- 9-76	19.94	84
		Little Miami River basin					
03239000	Little Miami River near Selma, OH	Lat 39°48'36", long 83°44'21", Clark County, Hydrologic Unit 05090202, at bridge on Selma Pike, 2.3 miles northwest of Selma, 3.1 miles upstream from North Fork.	48.9	1952-58‡, 1959-77	4- 5-77	5.12	505
03239500	North Fork Little Miami River near Pitchin, OH	Lat 39°49'40", long 83°46'38", Clark County, Hydrologic Unit 05090202, at bridge on county road, 1.1 miles upstream from Goose Creek, 1.3 miles southwest of Pitchin.	28.9	1952-58‡, 1959-77	-	<3.25	<105

See footnotes at end of table, p 417.

Annual maximum discharge at crest-stage partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft³/s)
		Little Miami River basin--Continued					
03241600	Shawnee Creek at Xenia, OH	Lat 39°40'32", long 83°55'32", Greene County, Hydrologic Unit 05090202, at bridge on U.S. Highway 68, 0.7 mile southeast of intersection with U.S. Highway 42 in Xenia.	4.21	1948-77	4- 5-77	10.40	66
03242100	Wayne Creek at Waynesville, OH	Lat 39°31'08", long 84°04'47", Warren County, Hydrologic Unit 05090202, at culvert on State Highway 73, 0.8 mile southeast of intersection of State Highway 73 and U.S. Highway 42 at Waynesville.	1.01	1966-77	-	<19.85	<125
03247100	Patterson Run near Owensville, OH	Lat 39°07'38", long 84°06'44", Clermont County, Hydrologic Unit 05090202, at bridge on private road, 200 feet north of U.S. Highway 50, 0.5 mile upstream from Brushy Fork, 1.2 miles east of Owensville.	3.34	1947-77	3- 4-77	2.46	440
03248000	Little Miami River at Plainville, OH	Lat 39°08'13", long 84°21'11", Hamilton County, Hydrologic Unit 05090202, at bridge on Newton Road, 0.5 mile east of Plainville, 0.7 mile northeast of Newton, 3.5 mile downstream from East Fork, and 8.2 mile upstream from mouth.	1,713	1914-15≠, 1918-20, 1965-71≠, 1972-77	4- 3-77	13.55	6,200
		Great Miami River basin					
03262750	Millers Ditch at Tipp City, OH	Lat 39°57'59", long 84°10'22", Miami County, Hydrologic Unit 05080001, at culvert on 4th Street in Tipp City.	.83	1966-77	4- 2-77	13.98	145
03263100	Poplar Creek near Vandalia, OH	Lat 39°51'10", long 84°11'21", Montgomery County, Hydrologic Unit 05090001, at culvert on Interstate Highway 75, 1.2 miles upstream from mouth, 1.5 miles southeast of Vandalia.	3.11	1947-77	4- 2-77	3.86	334
03263700	Bridge Creek near Greenville, OH	Lat 40°04'13", long 84°37'45", Darke County, Hydrologic Unit 05080001, at culvert on State Highway 49, 2.2 miles south of Greenville.	4.83	1947-77	4- 3-77	10.13	31
03265100	Hog Run tributary at Laura, OH	Lat 40°00'30", long 84°25'26", Miami County, Hydrologic Unit 05090001, at culvert on State Highway 571, 0.3 mile upstream from mouth, 1 mile northwest of Laura.	a/.46	1950-77	3-18-77	5.61	50
03268300	Beaver Creek at Brighton, OH	Lat 39°55'46", long 83°34'04", Clark County, Hydrologic Unit 05090001, at culvert on U.S. Highway 40, 0.2 mile west of Brighton.	3.33	1959-77	-	<10.29	<36
03272900	Collins Creek at Collinsville, OH	Lat 39°31'05", long 84°36'53", Butler County, Hydrologic Unit 05090002, at culvert on U.S. Highway 127, 0.3 mile upstream from mouth, 0.4 mile northwest of Collinsville.	.94	1966-77	4- 3-77	19.10	110
03274100	Blake Run near Reily, OH	Lat 39°27'59", long 84°45'22", Butler County, Hydrologic Unit 05090002, 600 feet upstream from culvert on Stevenson Road, 2.2 miles north of Reily, 3 miles upstream from mouth.	.29	1939-40, 1942-43, 1947-77	4- 2-77	3.33	69

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
< Less than.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Muskingum River Basin				
03262650 Spring Creek	Great Miami River	Lat 40°05'18", long 84°10'27", Miami County, Hydrologic Unit 05080001, adjacent to DeWeese Road, 600 ft (180 m) south of Rusk Road, 2.5 (4.0 km) upstream from mouth, 3 mi (5 km) northeast of Troy. a/	21.0	1968-74, 1976	10-19-76	0.03

a/ Data furnished by Miami Conservancy District.

Six series of varied flow, chemical, biological , and physical quality samples of the surface water of Rattlesnake Creek and its tributaries were made during the 1977 water year. This study was made in cooperation with the Department of Agriculture, Soil Conservation Service, to identify and evaluate reaches of lowered or substandard water quality, and to interpret the effects of alternative land-management techniques.

393724083700 RATTLESNAKE CREEK AT WEST LANCASTER, OH

LOCATION.--Lat 39°37'24", long 83°37'00", Fayette County, Hydrologic Unit 05060003, at bridge on U.S. Highway 35 at West Lancaster.

DRAINAGE AREA.--25.0 mi² (64.8 km²).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
NOV										
17...	0845	.39	705	8.0	1.0	5	11.6	82	1600	76
FEB										
25...	0930	95	410	7.8	.0	25	9.8	67	14000	1000
MAR										
31...	1125	13	645	8.2	9.5	4	12.2	110	480	120
MAY										
04...	0850	10	650	7.9	15.5	9	7.4	74	8500	1400
JUN										
29...	1430	1.0	610	8.6	26.5	20	12.0	160	12000	5900
AUG										
23...	1000	.22	610	8.0	20.5	15	8.6	94	1100	580

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
NOV										
17...	240	400	110	86	46	17	361	0	87	482
FEB										
25...	1300	200	84	45	21	5.6	140	0	48	302
MAR										
31...	56	340	110	77	37	7.8	284	0	56	380
MAY										
04...	240	350	92	82	36	8.5	318	0	56	412
JUN										
29...	3600	300	50	63	34	9.7	286	9	48	374
AUG										
23...	420	300	78	63	35	15	273	0	49	399

DATE	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV										
17...	38	.74	.01	.75	.33	.35	1.1	.20	.16	210
FEB										
25...	60	6.7	.05	6.7	1.4	1.9	8.6	.29	.21	1800
MAR										
31...	33	5.0	.05	5.0	.47	.49	5.5	.05	.03	300
MAY										
04...	59	5.4	.08	5.5	.56	.65	6.2	.10	.06	640
JUN										
29...	58	.93	.07	1.0	.93	1.0	2.0	.13	.10	1000
AUG										
23...	37	.14	.02	.16	.88	.94	1.1	.21	.05	1300

393553083362500 RATTLESNAKE CREEK NEAR MILLEDGEVILLE, OH

LOCATION.--Lat 39°35'53", long 83°36'25", Fayette County, Hydrologic Unit 05060003, at bridge on Milledgeville-Octa Road near Milledgeville.

DRAINAGE AREA.--34.3 mi² (88.8 km²).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	HARDNESS (CA,MG) (MG/L)
NOV									
17...	1230	.54	1000	8.2	3.0	5	13.7	100	400
FEB									
25...	1130	--	430	7.7	.5	25	9.8	68	200
MAR									
31...	0920	20	675	7.7	9.5	4	9.7	84	330
MAY									
04...	1040	18	710	7.8	15.0	6	6.9	68	330
JUN									
29...	1630	2.3	760	7.9	24.5	15	5.5	65	320
AUG									
23...	1315	.59	895	7.7	20.5	25	3.2	35	330

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)
NOV									
17...	67	85	45	78	403	0	57	667	454
FEB									
25...	84	45	21	9.4	140	0	46	298	92
MAR									
31...	110	73	36	13	275	0	57	393	33
MAY									
04...	92	78	34	15	296	0	57	419	40
JUN									
29...	44	72	34	32	336	0	50	453	53
AUG									
23...	35	74	35	52	358	0	60	522	49

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV									
17...	.87	.05	.92	1.8	4.2	5.1	1.8	1.6	240
FEB									
25...	6.3	.06	6.4	1.4	1.9	8.3	.31	.20	1800
MAR									
31...	4.4	.05	4.4	.43	.57	5.0	.15	.13	290
MAY									
04...	5.4	.09	5.5	.54	.80	6.3	.14	.11	500
JUN									
29...	1.4	.18	1.6	1.0	2.5	4.1	.04	.08	690
AUG									
23...	.56	.26	.82	.08	5.0	5.8	1.8	1.5	1400

393103083361700 WILSON CREEK NEAR SABINA, OH

LOCATION.--Lat 39°31'03", long 83°36'17", Clinton County, Hydrologic Unit 05060003, at bridge on Borum Road near Sabina.

DRAINAGE AREA.--21.7 mi² (56.2 km²).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
NOV										
18...	0845	.33	1300	7.8	1.5	5	9.3	66	10000	80
FEB										
25...	1310	43	520	7.7	2.0	25	10.0	72	20000	550
MAR										
30...	0815	7.8	695	7.9	13.5	2	8.3	79	19000	340
MAY										
03...	1130	24	690	7.9	14.5	6	9.5	92	42000	4600
JUN										
29...	1115	6.4	690	7.7	22.0	10	4.1	46	24000	2600
AUG										
24...	0820	.99	855	7.8	19.5	20	4.0	43	16000	8800

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
NOV										
18...	1700	370	0	85	39	140	576	0	120	838
FEB										
25...	1500	230	100	51	24	13	150	6	94	349
MAR										
30...	360	310	110	88	34	19	244	0	63	406
MAY										
03...	1700	320	120	75	32	11	240	0	56	395
JUN										
29...	4200	310	86	75	30	17	274	0	49	434
AUG										
24...	10000	330	32	78	32	43	363	0	60	507

DATE	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV										
18...	48	.59	.10	.69	.00	23	24	7.3	6.6	440
FEB										
25...	85	7.5	.06	7.6	1.2	1.7	9.3	.30	.19	1700
MAR										
30...	30	5.8	.20	6.0	2.5	5.7	12	.45	.38	180
MAY										
03...	64	11	.15	11	.61	.83	12	.16	.13	670
JUN										
29...	52	7.3	.58	7.9	1.0	2.0	9.9	.75	.74	300
AUG										
24...	32	.45	.30	.75	.80	5.4	6.2	2.0	1.8	1100

393040083335400 WEST BRANCH RATTLESNAKE CREEK NEAR SABINA, OH

LOCATION.--Lat 39°30'40", long 83°33'54", Fayette County, Hydrologic Unit 05060003, at bridge on West Fork Road near Sabina.

DRAINAGE AREA.--59.8 mi^2 (15 9 km^2).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	HARDNESS (CA,MG) (MG/L)
NOV									
18...	1115	.24	945	9.2	4.0	9	17.8	140	300
FEB									
25...	1500	162	480	7.6	.0	25	8.9	61	190
MAR									
30...	1455	21	620	8.6	18.5	2	12.1	130	290
MAY									
03...	1430	61	655	8.0	16.5	10	9.2	94	330
JUN									
24...	1000	12	585	7.9	22.5	15	6.9	78	270
AUG									
26...	1040	1.6	750	8.0	22.5	15	9.5	110	320

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)
NOV									
18...	21	66	34	110	240	52	91	649	62
FEB									
25...	86	43	19	17	122	0	38	313	63
MAR									
30...	110	62	32	15	194	12	58	332	73
MAY									
03...	130	78	32	9.8	237	0	54	380	47
JUN									
24...	77	62	29	12	240	0	42	377	48
AUG									
26...	62	75	33	30	318	0	58	475	40

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV									
18...	1.2	.21	1.4	3.8	6.9	8.3	7.8	2.3	470
FEB									
25...	6.3	.07	6.4	1.1	1.6	8.0	.24	.16	1700
MAR									
30...	6.2	.15	6.3	3.2	4.5	11	.18	.15	180
MAY									
03...	9.9	.12	10	.50	.59	11	.10	.07	480
JUN									
24...	4.2	.14	4.3	.93	.99	5.3	.28	.15	200
AUG									
26...	.97	.73	1.7	.94	1.3	3.0	.51	.40	700

393020083331800 RATTLESNAKE CREEK NEAR SABINA, OH

LOCATION.--Lat 39°30'20", long 83°33'18", Fayette County, Hydrologic Unit 05060003, at bridge on U.S. Highway 22 near Sabina.

DRAINAGE AREA.--106 mi^2 (275 km^2).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
NOV 18...	1345	.59	850	9.0	6.5	6	16.8	140	190	4
FEB 25...	1615	440	445	7.7	1.0	25	9.7	68	11000	1200
MAR 30...	1120	40	630	8.4	15.5	3	10.6	110	340	20
MAY 03...	0900	90	620	7.5	16.5	7	6.3	64	22000	820
JUN 29...	0800	19	585	7.4	22.0	25	4.2	47	3400	550
AUG 23...	1515	2.2	700	8.2	24.5	15	9.2	110	190	110

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
NOV 18...	72	340	69	71	40	65	268	32	99	597
FEB 25...	3000	170	76	40	18	14	120	0	34	277
MAR 30...	12	300	100	66	34	14	234	7	58	356
MAY 03...	1000	300	110	72	30	12	230	0	51	377
JUN 29...	1600	270	67	61	28	13	245	0	50	362
AUG 23...	130	310	64	70	32	25	296	0	56	445

DATE	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 18...	29	.36	.06	.42	1.1	1.6	2.0	.79	.63	300
FEB 25...	86	5.8	.07	5.9	1.5	2.2	8.1	.33	.22	2300
MAR 30...	43	4.2	.08	4.3	.59	.65	5.0	.11	.10	260
MAY 03...	57	8.8	.14	8.9	.98	1.1	10	.10	.07	400
JUN 29...	79	5.3	.17	5.5	.80	.94	6.4	.26	.25	500
AUG 23...	35	.93	.47	1.4	.97	1.2	2.6	.29	.21	800

392039083303400 LEES CREEK NEAR LEESBURG, OH

LOCATION.--Lat 39°20'39", long 83°30'34", Highland County, Hydrologic Unit 05060003, at bridge on Monroe Road near Leesburg.

DRAINAGE AREA.--74.5 mi² (193.0 km²).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	HARDNESS (CA,MG) (MG/L)
NOV 17...	1430	3.6	590	8.6	4.0	5	16.6	130	340
FEB 26...	1000	1[illegible]	510	8.1	2.0	15	11.8	86	260
MAR 29...	1035	44	590	8.5	13.5	3	13.6	130	320
MAY 02...	1520	180	550	8.1	18.0	80	9.0	95	270
JUN 28...	1330	4.0	565	8.2	24.5	10	8.7	100	280
AUG 25...	0900	4.9	590	8.4	19.0	10	9.7	100	300

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)
NOV 17...	79	70	40	12	281	18	63	378	38
FEB 26...	98	60	26	6.1	204	0	44	331	48
MAR 29...	98	73	34	7.4	251	11	53	355	38
MAY 02...	100	65	27	6.3	211	0	43	357	202
JUN 28...	53	61	32	9.7	282	0	44	367	40
AUG 25...	67	66	32	9.9	272	4	44	381	43

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 17...	.48	.01	.49	.21	.25	.74	.04	.03	110
FEB 26...	6.1	.04	6.1	.73	.88	7.0	.13	.09	800
MAR 29...	5.2	.03	5.2	.37	.38	5.6	.01	.01	270
MAY 02...	11	.16	11	1.8	2.2	13	.22	.06	6700
JUN 28...	1.3	.01	1.3	.57	.62	1.9	.06	.04	310
AUG 25...	1.9	.01	1.9	.41	.44	2.3	.07	.05	320

391755083275100 HARDIN CREEK NEAR CENTERFIELD, OH

LOCATION.--Lat 39°17'55", long 83°27'51", Highland County, Hydrologic Unit 05060003, at bridge on Cope Road near Centerfield.

DRAINAGE AREA.--21.3 mi² (55.2 km²).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	HARDNESS (CA,MG) (MG/L)
NOV									
19...	1215	2.4	570	8.2	4.5	2	12.9	99	330
FEB									
26...	1115	26	540	8.2	4.0	10	11.3	86	280
MAR									
29...	1530	13	545	8.4	17.5	3	11.1	120	320
MAY									
02...	1745	27	530	8.1	21.0	30	9.0	100	280
JUN									
28...	1130	1.8	560	8.0	23.0	10	8.0	92	290
AUG									
24...	1440	1.1	540	8.0	22.0	10	8.5	96	290

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)
NOV									
19...	64	73	36	7.1	325	0	52	380	10
FEB									
26...	72	68	26	6.2	250	0	46	321	60
MAR									
29...	74	74	33	6.2	295	0	49	350	8
MAY									
02...	62	68	26	5.9	252	0	41	322	38
JUN									
28...	35	69	29	5.9	313	0	40	350	19
AUG									
24...	50	67	29	5.9	288	0	46	347	18

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV									
19...	.23	.01	.24	.13	.15	.39	.06	.00	50
FEB									
26...	2.5	.03	2.5	.48	.56	3.1	.06	.04	430
MAR									
29...	2.0	.01	2.0	.35	.36	2.4	.01	.00	220
MAY									
02...	3.5	.06	3.6	1.1	1.2	4.8	.06	.02	1400
JUN									
28...	.40	.01	.41	.35	.40	.81	.02	.02	300
AUG									
24...	.11	.00	.11	.30	.33	.44	.02	.02	400

ATHENS COUNTY

391934082065000. Local number, AT-10.

LOCATION.--Lat 39°19'34", long 82°06'50", Hydrologic Unit 05030204, 0.3 mi (0.5 km) south of fairgrounds in Athens.
Owner: City of Athens.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 26 in (0.66 m), depth 52 ft (15.8 m), screened below 35 ft (10.7 m).

PERIOD OF RECORD.--June 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
APR										
19...	1360	7.0	20	75	356	0	290	57	140	180

DATE	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
APR									
19...	871	.01	.00	.26	.00	<10	4800	2	630

ATHENS COUNTY--Continued

392004082071600. Local number, AT-2A.

LOCATION.--Lat 39°20'04", long 82°07'16", Hydrologic Unit 05030204, 1.1 mi (1.8 km) west of city hall in Athens. Owner: City of Athens.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Unused drilled water-table well, diameter 12 in (0.3 m), depth 43 ft (13.1 m), cased.

DATUM.--Land-surface datum is 641.81 ft (195.624 m) above mean sea level. Measuring point: Floor of instrument shelter, 5.80 ft (1.768 m) above land-surface datum.

PERIOD OF RECORD.--March 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 20.00 ft (6.096 m) Oct. 4, 1955; minimum daily low, 1.05 ft (0.320 m) May 25, 28, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 19.52 ft (5.950 m) Feb. 11-12; minimum daily low, 15.99 ft (4.874 m) Apr. 10.

WATER LEVEL. IN FEET BELOW LAND SURFACE DATUM. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.09	18.32	18.75	18.91	19.23	18.33	17.44	17.06	17.76	18.33	18.54	18.71
2	18.11	18.25	18.77	18.92	19.25	18.32	17.36	17.09	17.85	18.26	18.46	18.72
3	18.14	18.19	18.78	18.92	19.28	18.30	17.30	17.10	17.93	18.23	18.45	18.73
4	18.17	18.19	18.81	18.92	19.32	18.27	16.95	17.07	17.98	18.23	18.49	18.73
5	18.18	18.21	18.81	18.94	19.37	18.21	16.69	16.98	18.03	18.20	18.53	18.71
6	18.22	18.23	18.82	18.94	19.41	18.10	16.46	16.87	18.11	18.17	18.57	18.73
7	18.24	18.27	18.82	18.97	19.44	18.03	16.26	16.78	18.14	18.15	18.60	18.74
8	18.25	18.30	18.78	18.98	19.45	18.00	16.11	16.61	18.14	18.19	18.62	18.75
9	18.26	18.31	18.74	18.98	19.48	18.00	16.03	16.41	18.20	18.24	18.63	18.76
10	18.25	18.35	18.69	19.01	19.51	18.03	15.99	16.35	18.22	18.28	18.63	18.78
11	18.21	18.38	18.67	19.02	19.52	18.05	16.10	16.37	18.23	18.31	18.64	18.80
12	18.18	18.41	18.66	19.04	19.52	18.05	16.16	16.40	18.27	18.33	18.64	18.81
13	18.21	18.42	18.67	19.04	19.49	18.06	16.22	16.45	18.31	18.34	18.60	18.83
14	18.23	18.44	18.66	19.04	19.39	17.90	16.33	16.53	18.34	18.34	18.52	18.86
15	18.30	18.46	18.66	19.05	19.30	17.78	16.41	16.60	18.37	18.35	18.50	18.88
16	18.32	18.48	18.69	19.08	19.20	17.72	16.48	16.74	18.40	18.37	18.47	18.88
17	18.34	18.49	18.73	19.09	19.14	17.69	16.56	16.83	18.42	18.39	18.48	18.87
18	18.36	18.52	18.74	19.10	19.10	17.66	16.64	---	18.44	18.42	18.49	18.81
19	18.37	18.54	18.74	19.11	19.08	17.59	16.72	---	18.47	18.44	18.51	18.76
20	18.39	18.56	18.77	19.12	19.07	17.39	16.76	---	18.50	18.48	18.53	18.76
21	18.41	18.58	18.80	19.14	19.08	17.32	16.81	---	18.53	18.50	18.54	18.81
22	18.43	18.60	18.80	19.15	19.07	17.25	16.86	---	18.55	18.54	18.58	18.87
23	18.44	18.62	18.79	19.16	19.05	17.21	16.88	---	18.57	18.54	18.60	18.93
24	18.44	18.64	18.78	19.14	18.97	17.19	16.88	---	18.59	18.56	18.63	18.95
25	18.43	18.65	18.78	19.14	18.84	17.21	16.91	---	18.61	18.57	18.64	18.95
26	18.40	18.67	18.81	19.15	18.67	17.24	16.96	17.55	18.61	18.56	18.64	18.95
27	18.37	18.69	18.82	19.16	18.50	17.25	16.98	17.57	18.57	18.53	18.66	18.97
28	18.35	18.70	18.84	19.18	18.40	17.29	17.06	17.61	18.54	18.56	18.66	18.98
29	18.36	18.73	18.86	19.18	---	17.34	17.07	17.67	18.42	18.59	18.66	18.99
30	18.36	18.75	18.87	19.19	---	17.38	17.05	17.69	18.36	18.60	18.68	18.99
31	18.37	---	18.89	19.20	---	17.43	---	17.71	---	18.56	18.69	---
MAX	18.44	18.75	18.89	19.20	19.52	18.33	17.44	—	18.61	18.60	18.69	18.99

AUGLAIZE COUNTY

403233083574500. Local number, AU-3.

LOCATION.--Lat 40°32'33", long 83°57'45", Hydrologic Unit 05080001, 1.0 mi (1.6 km) southwest of New Hampshire. Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in (0.3 m), depth 380 ft (115.8 m), cased to 52 ft (15.8 m).

DATUM.--Land-surface datum is 1,020 ft (310.896 m) above mean sea level. Measuring point: Floor of instrument shelter, 3.00 ft (0.914 m) above land-surface datum.

period of record.--December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 11.87 ft (3.618 m) Feb. 7-8, 1977; minimum daily low, 6.95 ft (2.118 m) Mar. 30, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 11.87 ft (3.618 m) Feb. 7-8; minimum daily low, 8.81 ft (2.685 m) May 14.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.75	10.30	10.67	11.18	11.69	11.64	10.21	9.17	8.97	8.90	---	9.81
2	9.78	10.31	10.79	11.16	11.64	11.63	9.98	9.15	9.07	8.98	9.48	9.82
3	9.84	10.21	10.75	11.13	11.60	11.60	10.05	9.16	9.16	8.96	9.49	9.77
4	9.87	10.27	10.84	11.14	11.56	11.40	9.87	9.00	9.17	8.96	9.54	9.78
5	9.86	10.30	10.82	11.18	11.75	11.47	9.72	8.92	9.08	8.95	9.59	9.74
6	9.92	10.31	10.64	11.16	11.82	11.46	9.88	8.95	9.07	8.95	9.61	9.81
7	9.93	10.37	10.71	11.16	11.87	11.43	9.82	8.96	9.07	8.94	9.56	9.82
8	9.90	10.35	10.84	11.18	11.87	11.40	9.86	8.91	9.03	8.98	9.57	9.87
9	9.93	10.23	10.86	11.21	11.80	11.31	9.79	8.92	9.05	9.06	9.63	9.83
10	10.00	10.33	10.84	11.11	11.80	11.27	9.69	8.91	9.10	9.10	9.61	9.88
11	10.02	10.42	10.88	11.24	11.81	11.27	9.68	8.91	9.02	9.06	9.67	9.92
12	10.01	10.49	10.79	11.34	11.74	11.18	9.67	8.92	8.97	9.07	9.66	9.92
13	9.98	10.50	10.92	11.29	11.66	11.10	9.59	8.85	9.03	9.16	9.64	9.82
14	9.99	10.46	10.88	11.14	11.75	11.15	9.54	8.81	9.00	9.22	9.68	9.84
15	10.02	10.42	10.79	11.22	11.80	11.11	9.53	8.86	8.96	9.22	9.70	9.86
16	10.11	10.49	10.78	11.32	11.78	11.15	9.52	8.90	8.91	9.24	9.64	9.81
17	10.17	10.42	10.94	11.26	11.76	11.11	9.47	8.91	8.90	9.19	9.66	9.76
18	10.22	10.37	10.93	11.25	11.67	10.91	9.43	8.89	8.89	9.22	9.68	9.74
19	10.14	10.45	10.87	11.27	11.65	10.95	9.41	8.90	8.90	9.24	9.69	9.64
20	10.06	10.44	10.87	11.32	11.66	10.85	9.39	8.89	8.87	9.27	9.69	9.69
21	10.10	10.47	11.01	11.38	11.67	10.85	9.39	8.91	8.95	9.26	9.64	9.74
22	10.22	10.60	10.99	11.47	11.57	10.68	9.34	8.93	8.96	9.32	9.61	9.71
23	10.19	10.60	10.98	11.46	11.59	10.68	9.22	8.97	8.96	9.33	9.66	9.65
24	10.11	10.58	11.01	11.33	11.44	10.66	9.17	8.95	8.94	9.31	9.68	9.57
25	10.17	10.53	10.90	11.29	11.57	10.61	9.11	8.91	8.88	9.32	9.76	9.57
26	10.28	10.44	10.86	11.28	11.61	10.54	9.11	8.91	8.92	9.42	9.73	9.53
27	10.31	10.56	10.88	11.33	11.59	10.44	9.09	8.92	8.93	9.46	9.76	9.56
28	10.33	10.57	10.83	11.44	11.57	10.17	9.16	8.91	8.92	9.44	9.79	9.57
29	10.28	10.66	10.95	11.48	---	10.24	9.21	8.97	8.91	---	9.79	9.58
30	10.20	10.69	10.98	11.55	---	10.18	9.20	9.04	8.89	---	9.77	9.56
31	10.24	---	11.06	11.54	---	10.25	---	9.00	---	---	9.78	---
MAX	10.33	10.69	11.06	11.55	11.87	11.64	10.21	9.17	9.17	9.46	9.79	9.92

BELMONT COUNTY

400619080423200. Local number, B-1.

LOCATION.--Lat 40°06'19", long 80°42'32", Hydrologic Unit 05030106, in the northeast part of Martins Ferry. Owner: City of Martins Ferry.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Unused drilled water-table well, diameter 40 in (1.02 m), depth drilled 79 ft (24.1 m), present depth 61 ft (18.6 m), cased.

DATUM.--Land-surface datum is 1,160 ft (353.568 m), above mean sea level. Measuring point: Surface of instrument platform, 13.40 ft (4.084 m) above land-surface datum.

REMARKS.--Water level affected by Ohio River stage and by pumping from nearby municipal wells.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 38.95 ft (11.872 m) Sept. 27, 1968; minimum daily low, 0.05 ft (0.015 m) Mar. 11, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 35.12 ft (10.705 m) Feb. 11; minimum daily low, 20.91 ft (6.373 m) Apr. 3.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.11	28.65	33.07	33.33	34.17	25.49	28.85	31.30	33.35	33.69	32.92	33.23
2	31.62	28.97	33.19	33.27	34.13	26.30	28.30	32.29	33.55	33.08	33.72	33.32
3	31.83	29.90	33.29	33.56	34.29	26.57	20.91	32.50	33.71	32.67	33.66	32.41
4	31.78	30.12	33.34	33.63	34.35	27.27	21.46	32.69	33.69	32.60	34.02	31.73
5	31.55	30.54	31.47	33.60	34.49	25.88	23.02	32.70	33.36	32.81	33.91	31.98
6	31.94	30.65	33.33	33.91	33.97	23.39	24.34	32.13	33.19	33.24	32.90	32.34
7	31.66	30.83	32.23	33.99	34.67	25.65	24.99	31.95	33.47	33.26	31.34	33.15
8	31.49	31.01	30.88	33.88	34.78	26.44	24.62	29.88	33.50	33.12	31.39	33.44
9	30.65	31.09	31.11	33.80	35.01	27.40	25.20	31.05	33.48	33.00	31.44	33.50
10	25.77	31.13	31.45	34.16	34.99	27.70	25.42	31.72	33.95	32.06	31.87	32.32
11	26.57	31.72	31.42	34.11	35.12	28.17	27.52	32.40	33.69	33.03	32.24	32.16
12	28.01	31.82	31.05	34.54	35.01	28.22	28.36	32.64	33.06	33.11	32.34	33.01
13	28.46	31.59	31.59	34.62	34.70	26.12	29.82	33.14	33.63	32.82	31.30	33.45
14	29.07	31.36	31.21	34.65	33.23	24.36	30.58	33.26	33.95	32.41	29.82	33.21
15	29.31	32.54	31.98	34.73	33.34	25.26	31.14	32.83	34.63	31.84	30.79	32.78
16	29.21	32.52	32.10	34.41	33.42	26.77	31.47	33.09	34.39	31.84	30.32	32.85
17	29.81	32.73	32.29	34.29	33.46	27.17	31.90	33.57	34.35	32.30	30.94	32.32
18	30.59	32.76	32.30	33.98	33.79	27.30	32.33	33.80	33.24	32.96	30.07	30.61
19	30.94	33.07	32.13	34.32	33.84	23.62	32.82	33.72	32.95	32.94	31.35	31.46
20	31.01	33.12	32.44	34.48	33.79	25.32	33.13	33.76	34.59	32.92	31.06	31.38
21	31.25	32.60	32.10	34.71	33.63	26.26	33.31	33.92	33.38	30.74	30.93	30.94
22	31.08	33.05	32.17	34.72	33.99	26.58	33.34	33.13	33.47	30.14	32.21	30.99
23	31.01	33.06	32.21	34.07	33.40	25.45	33.23	33.60	33.84	30.81	32.01	31.77
24	31.06	33.47	32.30	34.40	32.86	25.97	32.58	33.80	34.31	29.75	32.25	31.24
25	31.16	33.07	32.43	34.62	28.56	26.36	32.15	33.73	33.53	30.72	33.16	31.08
26	30.05	32.98	32.42	34.59	23.62	26.95	31.69	33.92	32.91	30.29	32.28	29.41
27	28.97	32.81	32.99	34.60	22.86	27.41	31.98	33.93	33.73	30.85	32.49	29.67
28	29.47	32.90	32.88	34.63	26.20	28.45	31.90	33.37	33.35	31.58	32.49	29.80
29	29.51	32.66	33.09	34.37	---	27.62	31.73	33.20	33.92	32.34	33.40	29.78
30	29.83	32.87	33.55	33.98	---	28.01	31.37	33.12	33.87	32.63	33.73	29.86
31	30.32	---	33.68	34.49	---	28.76	---	33.25	---	32.51	33.48	---
MAX	32.11	33.47	33.68	34.73	35.12	28.76	33.34	33.93	34.63	33.69	34.02	33.50

BUTLER COUNTY

391805084261800. Local number, BU-9.

LOCATION.--Lat 39°18'05", long 84°26'18", Hydrologic Unit 05090203, 2.5 mi (4.0 km) northwest of Sharonville. Owner: Olin-Mathieson Corp.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 26 in (0.66 m), depth 85 ft (26 m), cased.

DATUM.--Land-surface datum is 586.89 ft (178.884 m) above mean sea level. Measuring point: Floor of instrument shelter, 4.66 ft (1.420 m) above land-surface datum.

PERIOD OF RECORD.--July 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.40 ft (7.437 m) Mar. 16, 1954; minimum daily low, 4.40 ft (1.341 m) Aug. 3, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 16.45 ft (5.014 m) Sept. 28-29; minimum daily low, 10.27 ft (3.130 m) Apr. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.53	15.18	15.05	15.36	15.55	13.43	11.93	12.34	13.48	13.92	14.87	15.21
2	15.53	15.15	15.15	15.41	15.59	13.47	11.64	12.20	13.77	14.04	14.93	15.29
3	15.49	14.87	15.16	15.22	15.18	13.24	11.15	12.23	14.07	13.98	15.11	15.35
4	15.46	15.02	15.15	15.23	15.04	11.76	10.90	12.03	14.10	13.77	15.38	15.25
5	15.45	15.08	15.20	15.36	15.46	11.62	10.27	11.98	14.00	13.73	15.52	14.99
6	15.53	15.03	14.98	15.37	15.55	11.61	10.59	11.44	13.96	13.74	15.48	15.10
7	15.55	14.95	14.90	15.56	15.59	11.68	10.58	11.45	14.15	13.84	15.37	15.23
8	15.46	15.01	15.26	15.56	15.40	11.75	10.79	11.45	14.15	14.08	15.35	15.29
9	15.28	14.79	15.36	15.50	15.16	11.88	10.82	11.47	14.55	14.11	15.34	15.34
10	15.37	14.90	15.22	15.59	15.21	12.19	10.72	11.63	14.62	14.07	15.34	15.62
11	15.43	15.08	15.28	15.85	15.14	12.25	10.82	11.77	14.58	13.85	15.43	15.67
12	15.45	15.23	14.97	15.83	14.82	12.15	10.94	11.82	14.43	13.95	15.33	15.58
13	15.35	15.25	15.26	15.78	14.22	10.91	10.95	11.82	14.65	14.20	15.06	15.48
14	15.42	15.08	15.20	15.31	14.24	10.96	11.18	11.85	14.75	14.30	14.90	15.93
15	15.48	14.89	14.92	15.41	14.31	10.95	11.36	11.99	14.76	14.35	15.04	15.94
16	15.68	15.14	14.93	15.73	14.27	11.28	11.46	12.22	14.73	14.29	14.97	15.93
17	15.70	15.10	15.13	15.72	14.12	11.28	11.46	12.29	14.73	14.13	14.90	15.89
18	15.78	15.02	15.29	15.42	13.91	10.82	11.57	12.34	14.67	14.09	14.98	15.74
19	15.66	15.05	15.15	15.41	13.89	10.78	11.71	12.54	14.62	14.19	15.01	15.50
20	15.60	15.06	14.95	---	13.89	10.78	11.90	12.67	14.63	14.28	14.99	15.80
21	15.59	15.00	15.26	---	13.95	10.78	12.08	12.77	14.87	14.40	14.85	16.01
22	15.92	15.28	15.24	---	13.66	10.95	12.08	12.79	14.87	14.56	14.72	16.00
23	15.91	15.31	15.19	---	13.66	11.01	11.92	12.94	14.82	14.56	14.79	15.99
24	15.57	15.18	15.25	---	13.11	11.24	11.83	13.03	14.78	14.39	14.86	15.95
25	15.36	15.07	14.94	15.23	13.04	11.28	11.85	13.01	14.70	14.42	14.95	15.88
26	15.57	14.84	14.84	15.17	13.10	11.33	11.95	13.06	14.52	14.74	14.92	16.07
27	15.66	15.03	14.93	15.24	13.18	11.25	12.12	13.10	14.14	14.85	15.01	16.22
28	15.64	15.04	14.80	15.50	13.25	10.94	12.33	13.09	13.91	14.87	15.01	16.45
29	15.38	15.11	15.05	15.47	---	11.37	12.48	13.22	13.91	14.81	14.96	16.45
30	15.24	15.12	15.05	15.48	---	11.46	12.42	13.29	13.91	14.80	15.04	16.42
31	15.17	---	15.27	15.44	---	11.94	---	13.29	---	14.71	15.11	---
MAX	15.92	15.31	15.36	15.85	15.59	13.47	12.48	13.29	14.87	14.87	15.52	16.45

BUTLER COUNTY--Continued

392445084333000. Local number BU-36.

LOCATION.--Lat 39°24'45", long 84°33'30", Hydrologic Unit 05080002, on right bank of Great Miami River 300 ft (90 m) downstream from Twomile Creek in Hamilton.
Owner: Champion Paper Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled industrial supply water-table well, diameter 30 in (0.76 m), depth 168 ft (51.2 m) cased.

PERIOD OF RECORD.--December 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (CA,MG) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV 23...	1500	900	7.2	14.5	410	110	34	380	0	312
FEB 08...	1600	900	7.3	16.0	420	110	36	376	0	308
MAY 20...	1030	940	7.2	19.0	450	120	36	380	0	310
AUG 08...	1530	875	7.3	18.0	450	120	36	390	0	320

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)
NOV 23...	38	96	41	.2	540	1.1	.02	--	--	--
FEB 08...	30	120	44	.2	498	.99	.01	--	--	--
MAY 20...	38	120	47	.2	592	.99	.00	--	--	--
AUG 08...	31	110	45	.1	560	1.1	.01	0	0	10

DATE	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV 23...	--	--	--	70	--	--	0	--	--
FEB 08...	--	--	--	40	--	--	10	--	--
MAY 20...	--	--	--	560	--	--	40	--	--
AUG 08...	6	2	2	60	0	0	0	70	70

BUTLER COUNTY--Continued

392528084323000. Local number, BU-10.
LOCATION.--Lat 39°25'28", long 84°32'30", Hydrologic Unit 05080002, 2.0 mi (3.2 km) north of courthouse in Hamilton.
Owner: Champion Paper Company.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth drilled 71 ft (21.6 m), present depth 68 ft (20.7 m), cased.
DATUM.--Land-surface datum is 580 ft (176.784 m) above mean sea level. Measuring point: Floor of instrument shelter 6.80 ft (2.073 m) above land surface datum.
REMARKS.--Water level affected by pumping of nearby North Hamilton well field and by stage of the Great Miami River.
PERIOD OF RECORD.--July 1960 to September 1977 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.21 ft (6.465 m) Feb. 11, 1977; minimum daily low, 5.11 ft (1.558 m) Feb. 25, 1975.
EXTREMES FOR CURRENT YEAR.--Maximum daily low, 21.21 ft (6.465 m) Feb. 11; minimum daily low, 14.35 ft (4.374 m) Apr. 4.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.39	17.94	18.05	18.98	19.77	17.74	17.74	16.50	18.45	---	17.52	18.66
2	17.90	17.87	17.97	18.66	19.88	17.88	17.41	16.60	17.53	---	17.50	18.89
3	17.62	18.85	17.94	18.55	19.89	18.89	14.99	16.69	18.16	---	18.31	18.06
4	18.42	18.37	17.92	18.52	19.81	18.65	14.35	17.21	17.68	---	18.93	17.73
5	17.99	18.07	17.92	18.49	19.81	17.58	14.36	16.38	17.33	---	19.09	17.64
6	18.70	18.08	17.90	19.53	19.83	17.00	15.55	16.84	17.25	---	18.33	18.45
7	18.14	17.96	17.87	19.79	19.85	17.23	15.27	16.01	17.25	---	17.89	18.79
8	17.79	17.95	17.85	19.25	19.84	17.32	16.28	15.44	17.17	---	17.73	18.08
9	17.70	17.95	18.80	18.88	19.85	17.41	15.85	15.61	17.15	---	17.53	18.86
10	17.66	17.94	18.34	19.96	20.79	18.36	15.79	15.73	17.10	---	17.41	18.21
11	18.54	18.71	18.09	20.21	21.21	17.89	16.79	15.81	17.07	---	18.62	17.93
12	18.77	18.40	17.99	19.73	20.42	17.67	16.35	16.92	---	---	17.98	17.85
13	18.24	18.20	17.96	20.15	19.81	17.37	17.24	16.37	---	---	17.55	17.79
14	18.75	18.15	17.96	19.78	19.34	17.05	17.56	16.21	---	---	17.43	18.90
15	18.97	18.13	17.94	19.56	19.21	18.35	17.76	16.19	---	---	17.30	18.00
16	18.44	18.13	18.85	19.55	19.25	18.87	17.09	16.25	---	---	17.25	18.40
17	18.12	18.12	18.44	19.56	19.29	19.10	16.73	16.26	---	---	17.20	17.81
18	18.03	18.06	18.21	19.56	19.34	18.20	16.62	17.34	---	---	18.03	17.59
19	17.97	19.07	18.14	19.60	19.42	17.73	16.57	17.57	---	---	17.56	17.48
20	17.93	18.58	19.11	20.44	19.49	17.40	16.55	17.80	---	---	17.31	17.35
21	17.90	18.24	18.61	20.71	19.53	17.20	17.70	17.25	---	---	17.22	18.47
22	17.88	18.16	18.32	20.17	19.51	17.15	17.85	17.01	---	---	17.19	17.85
23	17.88	18.13	18.21	19.85	19.31	18.39	16.69	17.00	---	---	17.19	18.60
24	17.86	19.10	19.09	19.76	18.97	18.61	16.55	17.00	---	---	17.21	18.07
25	18.71	19.14	18.61	19.72	17.95	18.48	16.50	18.12	---	---	18.10	17.78
26	18.02	18.62	18.33	20.58	17.59	17.77	16.54	18.47	---	---	17.62	17.70
27	18.77	18.21	18.25	20.76	17.71	17.41	17.34	19.13	---	18.50	17.37	17.67
28	18.37	18.04	18.20	20.22	17.72	17.45	17.43	19.14	---	18.67	17.31	17.66
29	18.96	18.63	19.13	19.94	---	17.47	17.00	18.19	---	18.72	18.25	17.53
30	18.46	18.29	19.34	19.82	---	17.37	16.61	17.67	---	18.08	17.64	17.37
31	18.11	---	19.48	19.78	---	18.28	---	17.48	---	17.59	17.51	---
MAX	18.97	19.14	19.48	20.76	21.21	19.10	17.76	19.14	---	---	19.09	18.90

393202084241500. Local number, BU-15.

LOCATION.--Lat 39°32'02", long 84°24'15", Hydrologic Unit 05080002, at Hook Field (municipal airport) at Middletown.

Owner: City of Middletown.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 23 ft (7.0 m), cased.

DATUM.--Land-surface datum is 641 ft (195.377 m) above mean sea level. Measuring point: Floor of instrument shelter 3.50 ft (1.067 m) above land-surface datum.

REMARKS.--Water level affected by pumping wells nearby in Middletown well field.

PERIOD OF RECORD.--June 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 14.05 ft (4.282 m) Feb. 8-9, 1977; minimum daily low, 0.06 ft (0.018 m) Feb. 25, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 14.05 ft (4.282 m) Feb. 8-9; minimum daily low, 7.51 ft (2.289 m) Apr. 4.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.74	12.22	12.98	13.44	13.87	11.72	11.24	11.08	11.80	12.45	---	12.87
2	12.77	12.57	12.85	13.51	13.87	11.87	11.24	11.28	12.25	11.58	---	12.92
3	12.73	12.77	12.74	13.52	13.84	11.99	10.55	11.45	12.40	11.25	---	12.96
4	12.91	12.89	12.68	13.52	13.94	11.99	7.51	11.48	12.70	11.32	---	13.00
5	12.98	12.95	12.55	13.49	13.97	11.60	7.82	11.17	12.97	11.68	---	13.11
6	12.98	12.95	12.56	13.38	13.90	11.20	8.26	10.72	12.76	11.96	---	13.15
7	12.97	12.58	12.57	13.40	14.01	11.19	8.56	10.48	13.12	11.96	---	13.13
8	12.94	12.38	12.94	13.44	14.05	11.38	8.85	10.29	13.30	12.43	---	13.05
9	12.91	12.28	12.97	13.45	14.05	11.48	9.13	10.49	13.30	12.47	---	13.05
10	12.88	12.32	12.73	13.34	13.89	11.34	9.41	10.77	13.35	12.37	---	13.01
11	12.43	12.71	12.87	13.41	13.77	11.32	9.48	10.86	13.38	---	---	12.85
12	12.47	12.94	12.97	13.44	13.60	11.33	9.53	11.00	13.10	---	---	12.94
13	12.56	13.07	13.04	13.38	13.36	11.29	9.92	11.15	12.98	---	---	12.98
14	12.55	13.16	13.04	13.27	13.31	10.96	10.09	11.28	12.58	---	---	12.90
15	12.64	13.22	12.93	13.20	13.36	11.24	10.25	11.40	12.78	---	---	12.50
16	12.65	13.25	12.95	13.15	13.44	11.38	10.40	11.41	12.65	---	---	12.52
17	12.48	13.28	12.96	13.58	13.50	11.45	10.42	11.45	12.63	---	---	12.37
18	12.91	13.41	12.95	13.73	13.52	11.61	10.52	11.63	12.70	---	12.26	12.21
19	13.07	13.49	12.91	13.55	13.48	11.62	10.52	11.81	12.71	---	12.25	12.12
20	13.09	13.17	13.03	13.61	13.37	11.52	10.53	11.96	12.50	---	12.30	12.03
21	13.09	12.99	13.13	13.68	13.31	11.41	10.59	12.08	12.54	---	12.50	12.07
22	13.01	12.87	13.20	13.68	13.26	10.90	10.61	12.18	12.67	---	12.58	12.23
23	13.00	12.87	13.26	13.68	13.21	10.81	10.57	12.27	12.73	---	12.58	12.41
24	12.90	13.10	13.31	13.68	12.90	10.72	10.55	12.35	12.76	---	12.50	12.42
25	12.85	13.16	13.37	13.68	12.08	10.59	10.55	12.36	12.77	---	12.35	12.38
26	12.62	12.99	13.41	13.68	11.62	10.62	10.55	12.32	12.74	---	12.39	12.39
27	12.63	12.94	13.44	13.72	11.64	10.70	10.58	11.85	12.53	---	12.47	12.64
28	12.76	12.85	13.44	13.72	11.65	11.10	10.62	11.68	12.36	---	12.44	12.76
29	12.76	12.86	13.33	13.72	---	11.17	10.60	11.70	12.39	---	12.52	12.83
30	12.30	12.88	13.44	13.74	---	11.17	10.87	11.76	12.45	---	12.64	12.88
31	12.29	---	13.46	13.78	---	11.21	---	11.78	---	---	12.76	---
MAX	13.09	13.49	13.46	13.78	14.05	11.99	11.24	12.36	13.38	—	—	13.15

BUTLER COUNTY--Continued

392021084340300. Local number, BU-56.

LOCATION.--Lat 39°20'21", long 84°34'03", Hydrologic Unit 05080002, 1.3 mi (2.1 km) east of the Great Miami River in Fairfield.

Owner: Hamilton Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in (0.13 m), depth 58 ft (17.7 m), cased.

DATUM.--Land-surface datum (revised) is 583.62 ft (177.887 m) above mean sea level. Measuring point: Floor of instrument shelter, 3.00 ft (0.914 m) above land-surface datum.

REMARKS.--Land-surface datum formerly reported as 583.60 ft (177.881 m) above mean sea level.

PERIOD OF RECORD.--November 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 39.11 ft (11.921 m) Feb. 25-26, 1977; minimum daily low, 26.81 ft (8.172 m) Apr. 10, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 39.11 ft (11.921 m) Feb. 25-26; minimum daily low, 35.59 ft (10.848 m) Apr. 24-25.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.92	37.43	37.59	38.10	38.91	39.02	37.15	35.71	36.56	37.20	38.22	37.62
2	36.94	37.42	37.61	38.10	38.95	38.98	36.87	35.71	36.58	37.20	38.23	37.62
3	36.99	37.44	37.64	38.14	38.99	38.94	36.61	35.72	36.66	37.21	38.28	37.61
4	37.00	37.48	37.66	38.20	39.01	38.87	36.45	35.71	36.70	37.21	38.14	37.60
5	36.66	37.49	37.67	38.26	39.02	38.83	36.50	35.70	36.77	37.26	---	37.57
6	36.63	37.51	37.68	38.32	39.03	38.77	36.49	35.70	36.83	37.34	---	37.54
7	36.85	37.53	37.69	38.38	39.04	38.70	36.42	35.70	36.88	37.41	---	37.54
8	36.98	37.54	37.72	38.44	39.05	38.63	36.33	35.69	36.93	37.46	---	37.53
9	37.07	37.56	37.73	38.49	39.06	38.57	36.24	35.66	36.97	37.47	---	37.54
10	37.13	37.57	37.71	38.52	39.07	38.51	36.15	35.64	36.99	37.47	---	37.56
11	37.15	37.58	37.63	38.58	39.07	38.46	36.07	35.63	37.01	37.47	---	37.57
12	37.18	37.60	37.62	38.62	39.00	38.40	36.00	35.63	37.01	37.45	---	37.54
13	37.24	37.62	37.61	38.66	38.95	38.34	35.91	35.62	37.06	37.51	---	37.53
14	37.28	37.64	37.60	38.70	38.98	38.28	35.83	35.60	37.11	37.56	---	37.53
15	37.29	37.64	37.58	38.73	38.98	38.20	35.78	35.60	37.13	37.63	---	37.52
16	37.30	37.64	37.56	38.78	38.97	38.12	35.72	35.63	37.15	37.70	---	37.48
17	37.33	37.64	37.55	38.81	38.95	38.05	35.67	35.74	37.18	37.74	---	37.45
18	37.37	37.62	37.55	38.86	38.85	37.99	35.68	35.78	37.24	37.80	---	37.39
19	37.40	37.64	37.55	38.88	38.93	37.95	35.71	35.85	37.26	37.87	---	37.36
20	37.42	37.65	37.55	38.91	38.98	37.91	35.71	35.90	37.27	37.92	---	37.35
21	37.45	37.63	37.65	38.92	39.03	37.87	35.65	35.95	37.30	37.97	---	37.36
22	37.47	37.63	37.73	38.91	39.06	37.81	35.63	35.99	37.32	38.00	---	37.35
23	37.49	37.68	37.79	38.86	39.09	37.76	35.60	36.02	37.32	38.08	---	37.32
24	37.50	37.70	37.83	38.86	39.10	37.66	35.59	36.10	37.32	38.09	---	37.28
25	37.50	37.69	37.85	38.85	39.11	37.58	35.59	36.14	37.30	---	---	37.25
26	37.51	37.65	37.91	38.87	39.11	37.52	35.61	36.21	37.30	---	---	37.20
27	37.51	37.64	37.99	38.84	39.09	37.45	35.63	36.28	37.29	38.10	---	37.19
28	37.51	37.62	38.06	38.81	39.05	37.34	35.68	36.36	37.28	38.12	---	37.19
29	37.50	37.59	38.10	38.81	---	37.32	35.69	36.44	37.19	38.15	---	37.17
30	37.48	37.58	38.11	38.86	---	37.25	35.70	36.46	37.18	38.15	---	37.16
31	37.45	---	38.11	38.88	---	37.20	---	36.52	---	38.17	---	---
MAX	37.51	37.70	38.11	38.92	39.11	39.02	37.15	36.52	37.32	38.17	---	37.62

CLARK COUNTY

395835083491700. Local number CL-20.

LOCATION.--Lat 39°58'35", long 83°49'17", Hydrologic Unit 05080001, on left bank of Mad River 100 ft (30 m) upstream from Eagle City Road near Springfield.
Owner: City of Springfield.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 26 in (0.66 m), depth 96 ft (29.3 m), screened below 51 ft (15.5 m).

PERIOD OF RECORD.--June 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
JUN 22...	808	7.2	5	13	376	0	310	38	80	29

DATE	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
JUN 22...	308	.87	.01	.07	.00	10	0	6	120

CLERMONT COUNTY

385144084133900. Local number, CT-2.

LOCATION.--Lat 38°51'44", long 84°13'39", Hydrologic Unit 05090201, at the Wm. H. Zimmer Nuclear Power Station, Moscow, Ohio.

Owner: Cincinnati Gas and Electric Company.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 8 in (0.2 m), depth 90 ft (27.4 m), cased to 90 ft (27.4 m).

DATUM.--Land-surface is 500 ft (152.400 m) above mean sea level. Measuring point: Floor of instrument shelter 2.50 ft (0.762 m) above land-surface datum.

PERIOD OF RECORD.--January 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 40.56 ft (12.363 m) Feb. 28 to March 4, 1977; minimum daily low, 31.13 ft (9.488 m) March 30-31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 40.56 ft (12.363 m) Feb. 28 to March 4; minimum daily low, 32.93 ft (10.037 m) Apr. 28-30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	40.03	40.09	40.19	40.46	40.56	37.19	32.94	33.55	34.82	36.10	37.14
2	---	40.04	40.10	40.19	40.47	40.56	37.03	32.95	33.59	34.87	36.13	37.17
3	---	40.04	40.10	40.20	40.48	40.56	36.87	32.97	33.63	34.91	36.18	37.20
4	---	40.04	40.11	40.20	40.49	40.56	36.74	32.98	33.67	34.96	36.21	37.23
5	---	40.05	40.12	40.21	40.50	40.54	36.58	33.00	33.71	35.00	36.25	37.26
6	---	40.05	40.12	40.21	40.52	40.53	36.45	33.01	33.75	35.04	36.29	37.28
7	---	40.05	40.13	40.22	40.53	40.51	36.31	33.03	33.79	35.08	36.33	37.31
8	---	40.05	40.13	40.22	40.54	40.48	36.14	33.04	33.84	35.13	36.37	37.34
9	---	40.05	40.14	40.23	40.55	40.43	35.97	33.05	33.88	35.17	36.41	37.37
10	---	40.05	40.15	40.24	40.56	40.38	35.78	33.07	33.92	35.21	36.44	37.39
11	---	40.05	40.15	40.25	40.50	40.32	35.55	33.08	33.95	35.26	36.48	37.42
12	---	40.05	40.15	40.26	40.44	40.25	35.31	33.08	33.99	35.29	36.52	37.45
13	---	40.05	40.16	40.26	40.45	40.15	35.06	33.10	34.04	35.33	36.56	37.48
14	---	40.05	40.16	40.27	40.46	40.06	34.78	33.11	34.08	35.37	36.59	37.51
15	---	40.05	40.17	40.28	40.47	39.95	34.38	33.13	34.13	35.41	36.63	37.54
16	---	40.05	40.17	40.29	40.48	39.84	34.25	33.14	34.17	35.45	36.66	37.56
17	---	40.05	40.17	40.30	40.49	39.72	34.02	33.16	34.21	35.49	36.70	37.59
18	---	40.05	40.17	40.31	40.50	39.57	33.82	33.18	34.26	35.53	36.73	37.62
19	39.90	40.05	40.17	40.32	40.51	39.42	33.63	33.20	34.30	35.58	36.76	37.65
20	39.91	40.05	40.17	40.33	40.52	39.27	33.48	33.22	34.35	35.62	36.79	37.68
21	39.92	40.05	40.17	40.34	40.53	39.12	33.34	33.25	34.39	35.66	36.83	37.71
22	39.93	40.05	40.17	40.35	40.53	38.95	33.23	33.27	34.44	35.70	36.86	37.73
23	39.94	40.06	40.17	40.36	40.53	38.77	33.14	33.29	34.48	35.75	36.88	37.76
24	39.95	40.06	40.17	40.37	40.54	38.60	33.06	33.32	34.52	35.78	36.91	37.79
25	39.96	40.06	40.17	40.38	40.55	38.43	33.01	33.34	34.56	35.83	36.95	37.82
26	39.97	40.07	40.17	40.39	40.55	38.24	32.97	33.37	34.60	35.87	36.98	37.84
27	39.99	40.07	40.17	40.40	40.55	38.07	32.95	33.40	34.65	35.91	37.00	37.87
28	40.00	40.07	40.17	40.41	40.56	37.88	32.93	33.43	34.69	35.94	37.03	37.89
29	40.01	40.08	40.17	40.42	---	37.69	32.93	33.46	34.74	35.98	37.06	37.92
30	40.02	40.09	40.17	40.44	---	37.52	32.93	33.49	34.77	36.02	37.09	37.94
31	40.02	---	40.19	40.45	---	37.34	---	33.52	---	36.06	37.12	---
MAX	—	40.09	40.19	40.45	40.56	40.56	37.19	33.52	34.77	36.06	37.12	37.94

COSHOCTON COUNTY

401735081523800. Local number, CS-2.
LOCATION.--Lat 40°17'35", long 81°52'30", Hydrologic Unit 05040003, 1.7 mi (2.7 km) northwest of courthouse in Coshocton.
Owner: City of Coshocton.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled test well, diameter 6 in (0.15 m), depth 40 ft (12.2 m) cased.
DATUM.--Land-surface datum is 740 ft (225.552 m) above mean sea level. Measuring point: Floor of instrument shelter 8.50 ft (2.591 m) above land-surface datum.
PERIOD OF RECORD.--May 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 18.47 ft (5.630 m) Feb. 12, 1977; minimum daily low, 0.43 ft (0.131 m) Feb. 21, 1951.
EXTREMES FOR CURRENT YEAR.--Maximum daily low, 18.47 ft (5.630 m) Feb. 12; minimum daily low, 7.33 ft (2.234 m) Apr. 9-10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.83	16.23	16.99	16.57	18.22	12.07	12.75	14.61	17.22	17.18	15.60	18.21
2	16.80	16.29	17.04	16.52	18.25	12.38	12.89	14.45	17.32	16.77	15.56	18.34
3	16.25	16.37	17.08	16.64	18.27	12.75	12.50	14.83	17.39	15.99	15.61	18.34
4	16.34	16.46	17.14	16.79	18.29	13.08	10.74	15.06	17.41	15.99	15.91	17.72
5	16.44	16.57	16.84	16.99	18.32	13.18	9.25	15.10	17.44	15.53	16.58	17.72
6	16.45	16.61	17.08	16.99	18.35	13.06	8.53	14.62	17.47	15.43	17.07	17.17
7	16.71	15.60	17.14	17.11	18.37	12.90	8.32	14.32	17.34	15.48	17.16	17.64
8	16.84	16.02	17.19	17.19	18.39	13.17	7.56	14.18	17.11	15.54	17.00	17.79
9	16.84	16.71	17.12	17.15	18.42	13.34	7.33	14.07	16.69	15.45	16.87	17.86
10	16.14	17.03	17.17	16.81	18.45	13.67	7.33	14.21	16.63	15.25	16.81	17.92
11	16.21	17.14	16.98	17.24	18.46	14.14	7.74	14.45	16.62	15.46	16.68	17.92
12	16.56	17.22	16.98	17.47	18.47	14.44	8.07	14.82	16.62	15.81	16.75	17.49
13	16.61	16.97	16.61	17.61	18.44	14.46	8.34	14.96	16.59	16.18	16.81	17.91
14	16.85	16.50	16.65	17.69	18.30	13.07	8.82	15.07	16.92	16.27	16.82	17.98
15	16.95	16.97	16.71	17.71	17.99	12.01	9.37	15.14	17.20	16.21	16.46	17.95
16	16.61	17.28	16.78	17.56	17.64	11.79	10.18	15.45	17.37	16.50	16.73	17.87
17	16.68	17.52	16.74	17.71	17.38	11.99	11.16	15.62	17.49	16.80	16.90	17.73
18	16.49	17.63	16.45	17.79	17.26	12.08	11.91	15.72	17.61	16.83	17.08	17.24
19	16.81	17.58	16.46	17.84	17.25	11.86	12.69	15.67	17.62	16.79	17.07	15.96
20	16.91	17.38	16.69	17.88	17.28	11.11	13.46	15.99	17.40	17.12	17.25	15.86
21	16.84	17.15	17.03	17.91	17.35	10.78	13.95	16.32	17.53	17.25	17.35	15.78
22	17.00	16.86	17.03	17.93	17.42	10.70	14.32	16.43	17.57	17.27	17.20	15.79
23	16.96	17.25	16.84	17.96	17.43	10.72	14.41	16.58	17.55	17.19	17.38	15.95
24	16.57	17.14	16.40	17.99	17.35	10.82	14.39	16.76	17.74	16.12	17.42	15.99
25	16.57	17.27	16.32	18.02	16.71	11.02	14.37	16.88	17.81	15.42	17.58	15.49
26	16.66	17.28	16.24	18.05	15.08	11.28	14.40	16.99	17.73	15.54	17.56	15.86
27	16.54	17.01	16.36	18.08	13.18	11.55	14.46	17.08	17.70	15.73	17.69	16.35
28	16.51	16.80	16.74	18.11	12.35	11.83	14.51	17.17	17.41	15.90	17.72	16.58
29	16.48	16.97	16.77	18.14	---	12.10	14.47	17.18	17.60	16.01	17.60	16.73
30	16.57	17.06	16.96	18.17	---	12.22	14.59	17.11	17.61	16.08	17.85	16.81
31	16.30	---	16.97	18.20	---	12.47	---	17.05	---	15.83	18.05	---
MAX	17.00	17.63	17.19	18.20	18.47	14.46	14.59	17.18	17.81	17.27	18.05	18.34

FAIRFIELD COUNTY

394544082271000. Local number, F-1.

LOCATION.--Lat 39°45'44", long 82°27'10", Hydrologic Unit 05030204, near the west edge of West Rushville. Owner: State of Ohio.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in (0.15 m), depth 84 ft (25.6 m), cased.

DATUM.--Land-surface datum is 980 ft (298.704 m) above mean sea level. Measuring point: Floor of instrument shelter 8.02 ft (2.444 m) above land-surface datum.

PERIOD OF RECORD.--March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 19.81 ft (6.038 m) Mar. 1-4, 1964; minimum daily low, 7.27 ft (2.216 m) May 5-6, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 19.10 ft (5.822 m) Feb. 16-20; minimum daily low, 13.85 ft (4.221 m) Apr. 15-18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.07	17.21	17.44	18.07	18.94	18.66	15.03	14.45	15.99	17.20	17.77	18.11
2	16.13	17.23	17.47	18.09	18.95	18.57	15.02	14.51	16.03	17.24	17.80	18.17
3	16.19	17.24	17.49	18.10	18.97	18.47	14.96	14.58	16.09	17.27	17.81	18.22
4	16.24	17.24	17.52	18.11	18.97	18.35	14.92	14.62	16.14	17.29	17.83	18.23
5	16.29	17.25	17.55	18.13	18.97	18.22	14.72	14.67	16.19	17.31	17.84	18.24
6	16.35	17.25	17.58	18.14	18.98	18.14	14.45	14.72	16.21	17.33	17.87	18.24
7	16.40	17.26	17.59	18.16	19.00	18.05	14.32	14.78	16.25	17.35	17.88	18.24
8	16.45	17.26	17.62	18.17	19.02	17.98	14.20	14.83	16.31	17.37	17.90	18.24
9	16.47	17.27	17.65	18.18	19.04	17.87	14.09	14.88	16.34	17.39	17.91	18.24
10	16.51	17.26	17.69	18.20	19.06	17.75	14.03	14.93	16.38	17.39	17.93	18.24
11	16.55	17.26	17.72	18.21	19.07	17.61	13.94	14.97	16.43	17.43	17.95	18.24
12	16.59	17.26	17.74	18.24	19.08	17.51	13.88	15.02	16.46	17.44	17.95	18.24
13	16.62	17.27	17.77	18.27	19.09	17.39	13.87	15.06	16.52	17.45	17.96	18.24
14	16.66	17.26	17.79	18.28	19.09	17.24	13.86	15.09	16.56	17.47	17.96	18.24
15	16.69	17.26	17.82	18.29	19.09	17.14	13.85	15.13	16.59	17.49	17.96	18.25
16	16.73	17.27	17.83	18.31	19.10	17.00	13.85	15.17	16.63	17.50	17.96	18.25
17	16.77	17.28	17.85	18.40	19.10	16.86	13.85	15.21	16.68	17.52	17.96	18.25
18	16.81	17.28	17.87	18.45	19.10	16.69	13.85	15.26	16.72	17.54	17.96	18.25
19	16.85	17.28	17.90	18.52	19.10	16.51	13.86	15.31	16.75	17.55	17.96	18.25
20	16.88	17.28	17.91	18.57	19.10	16.40	13.88	15.36	16.79	17.57	17.96	18.25
21	16.91	17.29	17.92	18.60	19.09	16.12	13.90	15.41	16.83	17.58	17.97	18.25
22	16.95	17.30	---	18.64	19.09	15.92	13.90	15.48	16.88	17.61	17.97	18.25
23	16.98	17.32	---	18.67	19.07	15.70	13.90	15.54	16.90	17.61	17.98	18.24
24	17.01	17.32	---	18.72	19.05	15.57	13.90	15.59	16.96	17.63	17.98	18.23
25	17.03	17.34	---	18.78	18.99	15.46	14.09	15.63	16.99	17.64	17.96	18.22
26	17.06	17.35	---	18.86	18.94	15.39	14.14	15.68	17.03	17.66	17.99	18.20
27	17.09	17.36	---	18.87	18.89	15.32	14.21	15.72	17.07	17.69	18.00	18.19
28	17.13	17.38	---	18.89	18.68	15.25	14.25	15.76	17.11	17.70	18.01	18.17
29	17.15	17.39	18.05	18.91	---	15.17	14.32	15.82	17.15	17.72	18.01	18.16
30	17.17	17.42	18.05	18.91	---	15.05	14.38	15.88	17.17	17.73	18.02	18.16
31	17.19	---	18.06	18.94	---	15.05	---	15.94	---	17.75	18.04	---
MAX	17.19	17.42	---	18.94	19.10	18.66	15.03	15.94	17.17	17.75	18.04	18.25

FRANKLIN COUNTY

395118082573300. Local number, FR-3.

LOCATION.--Lat 39°51'18", long 82°57'32", Hydrologic Unit 05060001, 0.7 mi (1.1 km) southwest of Reese.
Owner: R. Hann

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 12 in (0.3 m), depth drilled 60 ft (18.3 m), present depth 53 ft (16.2 m), cased.

DATUM.--Land-surface datum is 712.94 ft (217.304 m) above mean sea level. Measuring point: Floor of instrument shelter 3.43 ft (1.045 m) above land-surface datum.

PERIOD OF RECORD.--April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 20.75 ft (6.325 m) July 7, 1966; minimum daily low, 0.0 ft (0.0 m) Jan. 22, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 13.12 ft (3.999 m) Aug. 6-7; minimum daily low, 9.95 ft (3.033 m) Apr. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.26	11.76	12.62	12.15	12.96	10.99	11.97	11.87	12.77	12.21	13.03	12.98
2	12.24	11.82	12.67	12.17	12.96	11.02	11.98	11.90	12.79	12.21	13.04	13.00
3	12.20	11.90	12.69	12.10	12.91	11.24	10.64	11.89	12.82	12.41	13.07	12.95
4	12.14	11.98	12.71	12.09	12.91	11.24	10.07	11.82	12.84	12.56	13.08	12.71
5	12.07	12.02	12.73	12.12	12.97	11.13	9.95	11.68	12.85	12.63	13.10	12.76
6	12.07	12.00	12.71	12.12	12.98	11.28	10.03	11.51	12.87	12.70	13.12	12.69
7	12.06	12.00	12.64	12.15	12.98	11.43	10.44	11.44	12.88	12.77	13.12	12.56
8	12.07	12.03	12.47	12.15	12.97	11.54	10.73	11.40	12.89	12.79	12.45	12.66
9	12.04	11.99	12.53	12.15	12.97	11.63	10.63	11.44	12.82	12.81	12.36	12.75
10	12.04	12.11	12.57	12.17	12.99	11.72	10.48	11.72	12.26	12.85	12.52	12.85
11	12.11	12.16	12.60	12.29	12.96	11.78	10.53	11.92	12.38	12.89	12.60	12.91
12	12.13	12.21	12.38	12.41	12.83	11.79	10.49	12.04	12.51	12.85	12.51	12.93
13	12.22	12.22	12.29	12.46	12.58	11.19	10.34	12.14	12.60	12.83	12.41	12.95
14	12.29	12.20	12.23	12.56	12.30	10.40	10.40	12.24	12.65	12.86	12.45	12.96
15	12.37	12.23	12.18	12.64	12.23	10.61	10.70	12.32	12.68	12.89	12.55	12.60
16	12.39	12.30	12.15	12.71	12.31	10.82	10.99	12.39	12.73	12.87	12.62	12.54
17	12.39	12.35	12.19	12.71	12.36	10.88	11.19	12.43	12.77	12.85	12.70	12.14
18	12.40	12.42	12.20	12.75	12.42	10.85	11.31	12.47	12.71	12.68	12.73	12.24
19	12.35	12.48	12.14	12.78	12.48	10.38	11.50	12.52	12.59	12.71	12.78	12.25
20	12.34	12.51	12.13	12.82	12.49	10.64	11.70	12.57	12.70	12.80	12.84	12.10
21	12.25	12.55	12.17	12.82	12.52	10.67	11.88	12.61	12.78	12.84	12.86	12.27
22	12.39	12.59	12.16	12.85	12.50	10.77	11.98	12.65	12.82	12.79	12.84	12.40
23	12.43	12.61	12.13	12.84	12.28	10.82	11.98	12.65	12.86	12.79	12.83	12.49
24	12.41	12.61	12.12	12.81	11.47	10.93	11.88	12.56	12.88	12.86	12.88	12.58
25	12.03	12.61	12.05	12.78	10.71	11.07	11.75	12.59	12.90	12.91	12.91	12.63
26	12.04	12.62	12.08	12.81	10.71	11.37	11.89	12.64	12.94	12.91	12.94	12.70
27	12.12	12.57	12.09	12.85	10.78	11.54	11.97	12.67	12.95	12.94	12.94	12.76
28	12.16	12.50	12.06	12.89	10.86	11.59	12.02	12.71	12.88	12.96	12.95	12.81
29	12.19	12.59	12.15	12.89	---	11.64	11.80	12.76	12.39	12.98	12.98	12.84
30	12.20	12.62	12.13	12.91	---	11.76	11.75	12.79	12.44	12.98	12.98	12.86
31	12.10	---	12.14	12.92	---	11.91	---	12.79	---	13.00	12.95	---
MAX	12.43	12.62	12.73	12.92	12.99	11.91	12.02	12.79	12.95	13.00	13.12	13.00

395157083003500. Local number, FR-109.

LOCATION.--Lat 39°51'57", long 83°00'35", Hydrologic Unit 05060001, 6.6 mi (10.5 km) south of the State capital in Columbus.

Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (0.15 m), depth 92 ft (28.0 m), cased to 82 ft (25.0 m).

DATUM.--Land-surface datum is 702.24 ft (214.043 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m) above land-surface datum.

PERIOD OF RECORD.--July 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.34 ft (6.504 m) Feb. 9-12, 1977; minimum daily low, 14.43 ft (4.398 m) Feb. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 21.34 ft (6.504 m) Feb. 9-12; minimum daily low, 16.64 ft (5.072 m) Apr. 16-18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.12	20.49	20.75	21.02	21.29	20.68	19.23	17.03	18.09	19.04	19.79	20.26
2	20.14	20.49	20.78	21.03	21.29	20.64	19.17	17.06	18.15	19.08	19.80	20.27
3	20.16	20.50	20.78	21.03	21.29	20.59	18.97	17.08	18.19	19.10	19.83	20.21
4	20.17	20.52	20.79	21.04	21.31	20.51	18.02	17.09	18.21	19.13	19.85	20.15
5	20.21	20.53	20.80	21.05	21.33	20.46	17.65	17.12	18.23	19.15	19.87	20.18
6	20.24	20.54	20.79	21.05	21.33	20.42	17.48	17.15	18.29	19.18	19.89	20.19
7	20.25	20.56	20.80	21.08	21.33	20.37	17.33	17.18	18.32	19.22	19.91	20.20
8	20.25	20.56	20.81	21.08	21.33	20.34	17.18	17.20	18.34	19.25	19.92	20.21
9	20.27	20.56	20.82	21.09	21.34	20.30	17.07	17.23	18.40	19.28	19.93	20.23
10	20.28	20.58	20.83	21.10	21.34	20.26	16.94	17.27	18.43	19.30	19.95	20.26
11	20.29	20.59	20.83	21.11	21.34	20.23	16.85	17.31	18.45	19.32	19.96	20.27
12	20.30	20.60	20.84	21.12	21.34	20.19	16.79	17.33	18.49	19.35	19.95	20.27
13	20.32	20.61	20.85	21.11	21.31	20.06	16.72	17.37	18.53	19.37	19.97	20.28
14	20.32	20.61	20.85	21.12	21.29	19.99	16.66	17.41	18.56	19.40	19.96	20.30
15	20.36	20.63	20.85	21.13	21.29	19.93	16.65	17.45	18.59	19.43	19.96	20.30
16	20.37	20.64	20.87	21.16	21.30	19.88	16.64	17.48	18.63	19.44	19.97	20.29
17	20.39	20.64	20.89	21.16	21.29	19.84	16.64	17.51	18.66	19.47	20.00	20.24
18	20.40	20.65	20.89	21.17	21.30	19.75	16.64	17.55	18.68	19.49	20.02	20.26
19	20.40	20.66	20.89	21.17	21.30	19.73	16.66	17.58	18.71	19.51	20.04	20.26
20	20.41	20.67	20.91	21.18	21.30	19.66	16.69	17.62	18.74	19.53	20.06	20.27
21	20.42	20.68	20.92	21.20	21.31	19.64	16.72	17.67	18.78	19.54	20.07	20.28
22	20.45	20.69	20.92	21.22	21.30	19.55	16.74	17.71	18.81	19.56	20.09	20.29
23	20.45	20.69	20.94	21.21	21.22	19.53	16.76	17.74	18.84	19.58	20.11	20.30
24	20.43	20.70	20.94	21.21	21.05	19.48	16.77	17.78	18.87	19.60	20.13	20.31
25	20.44	20.70	20.94	21.22	20.93	19.44	16.80	17.81	18.90	19.64	20.15	20.32
26	20.45	20.71	20.96	21.23	20.86	19.40	16.85	17.85	18.94	19.66	20.16	20.34
27	20.46	20.72	20.96	21.23	20.76	19.36	16.89	17.88	18.95	19.68	20.18	20.36
28	20.47	20.73	20.97	21.26	20.74	19.29	16.94	17.93	18.96	19.70	20.20	20.37
29	20.48	20.75	20.99	21.26	---	19.27	16.95	17.98	19.00	19.72	20.21	20.37
30	20.48	20.75	21.00	21.26	---	19.25	16.99	18.03	19.02	19.74	20.22	20.38
31	20.48	---	21.01	21.27	---	19.24	---	18.04	---	19.76	20.24	---
MAX	20.48	20.75	21.01	21.27	21.34	20.68	19.23	18.04	19.02	19.76	20.24	20.38

GALLIA COUNTY

383638082103300. Local number, G-2.

LOCATION.--Lat 38°36'38", long 82°10'33", Hydrologic Unit 05090101, 5.9 mi (9.5 km) east of Crown City.
Owner: State of Ohio.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 12 in (0.3 m), depth 65 ft, (19.8 m), cased.

DATUM.--Land-surface datum 552 ft (168.250 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m) above land-surface datum.

PERIOD OF RECORD.--June 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded daily low, 33.10 ft (10.089 m) Feb. 10-11, 1977; minimum recorded daily low 20.95 ft (6.386 m) Feb. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 33.10 ft (10.089 m) Feb. 10-11; minimum recorded daily low, 26.27 ft (8.007 m) Mar. 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---		---	32.28	32.75	26.99	---	29.10	32.11	32.22	32.42	32.52
2	---		---	32.31	32.87	26.97	---	29.30	32.14	32.28	32.39	32.62
3	---		---	32.46	32.92	27.08	---	29.47	32.17	32.44	32.56	32.54
4	---		---	32.61	33.00	26.96	---	29.54	32.24	32.58	32.61	32.66
5	---		---	32.55	33.05	26.72	---	29.48	32.24	32.58	32.64	32.75
6	---		---	32.37	32.99	26.32	---	29.10	32.32	32.55	32.77	32.72
7	32.72		---	32.68	33.08	26.27	---	28.74	32.34	32.63	32.81	32.70
8	32.73		---	32.59	32.94	26.56	---	27.88	32.34	32.64	32.23	32.85
9	31.97		29.48	32.56	33.08	26.67	---	27.71	32.32	32.39	32.18	32.87
10	29.72		29.90	32.75	33.10	---	---	28.22	32.35	32.51	32.01	32.83
11	28.11		30.07	32.76	33.10	---	---	28.79	32.30	32.54	31.93	32.86
12	27.53		30.50	32.75	32.76	---	---	29.19	32.19	32.54	31.97	32.89
13	28.23		30.53	32.74	32.30	---	---	29.35	32.44	32.54	31.99	32.93
14	28.70		30.20	32.80	31.54	---	---	29.86	32.54	32.36	31.81	33.01
15	29.50		30.08	32.78	31.04	---	---	30.18	32.55	32.02	30.97	32.95
16	29.71		30.61	32.84	31.00	---	---	30.53	32.46	32.17	30.79	32.54
17	29.98		30.81	32.67	30.98	---	---	30.65	32.41	32.40	30.94	32.58
18	30.37		30.85	32.63	31.14	---	---	30.90	32.44	32.57	30.86	32.60
19	30.83		30.96	32.53	31.33	---	---	30.96	32.25	32.65	30.68	32.52
20	31.13		31.35	32.78	31.34	---	---	31.05	32.44	32.68	31.26	32.35
21	31.12		31.45	32.73	31.50	---	---	31.28	32.60	32.25	31.49	32.21
22	31.30		31.30	32.54	31.63	---	---	31.38	32.57	31.76	31.75	32.15
23	31.30		31.56	32.57	31.52	---	---	31.36	32.51	31.72	31.88	32.04
24	31.33		31.58	32.76	30.62	---	---	31.52	32.53	31.59	31.94	32.25
25	31.35		31.66	32.77	29.66	---	29.29	31.54	32.57	31.68	31.71	32.26
26	---		31.92	32.81	28.28	---	29.17	31.47	32.52	31.43	31.82	32.13
27	---		31.94	32.80	27.08	---	29.13	31.82	32.45	31.55	31.92	31.96
28	---		32.00	32.74	26.79	---	29.39	31.87	32.41	31.68	32.16	31.94
29	---		31.94	32.87	---	---	29.26	31.90	32.22	31.99	32.28	31.77
30	---		31.90	32.84	---	---	28.90	32.04	32.26	32.17	32.34	31.89
31	---		32.13	32.82	---	---	---	32.09	---	32.42	32.43	---
MAX	---		---	32.87	33.10	---	---	32.09	32.60	32.68	32.81	33.01

HAMILTON COUNTY

390645084480500. Local number, H-21.
LOCATION.--Lat 39°06'45", long 84°48'05", Hydrologic Unit 05080002, on right bank of Ohio River, 0.7 mi (1.1 km) upstream from Great Miami River.
Owner: Dupont Corporation.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled industrial supply water-table well, diameter 16 in (0.41 m) depth 133 ft (40.54 m), screened below 117 ft (35.7 m).
PERIOD OF RECORD.--November 1964 to October 1974, November 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV									
29...	951	7.1	15	410	0	336	52	110	26

DATE	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV									
29...	536	1.8	.01	.01	.04	<10	470	1	10

390653084485700. Local number, H-5.

LOCATION.--Lat 39°06'53", long 84°48'57", Hydrologic Unit 05080002, 3.1 mi (5.0 km) south of Elizabethtown. Owner: E. I. Dupont de Nemours and Company.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 8 in (0.20 m), depth 122 ft (37.2 m), cased to 122 ft (37.2 m).

DATUM.--Land-surface datum is 500 ft (152.400 m) above mean sea level. Measuring point: Floor of shelter, 4.00 ft (1.219 m) above land-surface datum.

REMARKS.--Water levels affected by stages in the Ohio and Great Miami Rivers.

PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 74.50 ft (22.708 m) Sept. 10-11, 1957; minimum daily low, 24.15 ft (7.361 m) Mar. 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 54.01 ft (16.462 m) Oct. 1; minimum daily low, 38.82 ft (11.832 m) Apr. 9.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54.01	52.35	52.72	52.32	52.45	44.94	49.61	52.21	53.26	52.48	53.65	53.63
2	53.92	52.14	52.78	52.34	52.47	45.89	49.58	52.23	53.71	52.60	53.61	53.66
3	53.89	52.03	52.76	52.35	52.39	46.45	49.37	52.47	53.78	52.75	53.65	53.72
4	53.88	52.09	52.72	52.43	52.44	45.86	48.44	52.60	53.25	52.78	53.69	53.55
5	53.79	52.31	52.66	52.52	52.57	45.25	46.89	52.52	52.45	52.89	53.72	53.76
6	53.95	52.57	52.50	52.46	52.60	44.89	44.32	52.35	52.32	52.84	53.68	53.76
7	53.96	52.63	52.58	52.58	52.54	45.11	41.67	52.11	52.93	52.99	53.70	53.61
8	53.88	52.73	52.41	52.57	52.55	45.78	39.46	51.62	53.16	53.01	53.59	53.82
9	53.77	52.83	51.97	52.55	52.52	46.80	38.82	50.99	53.34	52.72	53.55	53.93
10	53.57	52.90	51.14	52.60	52.58	47.59	40.26	50.96	53.33	52.72	53.47	53.90
11	52.32	52.40	50.84	52.63	52.55	48.20	42.18	51.44	53.25	52.80	53.43	53.83
12	49.56	52.87	51.23	52.67	52.34	48.31	44.04	51.13	51.63	52.89	53.35	53.83
13	48.05	52.89	51.34	52.60	52.11	47.88	45.46	51.42	52.20	52.94	53.26	53.83
14	49.61	52.89	51.43	52.62	51.77	47.20	47.75	52.40	52.45	52.95	53.27	53.99
15	50.74	52.97	51.39	52.63	51.28	45.71	49.22	52.80	51.28	52.91	52.94	53.97
16	51.30	53.08	51.48	52.54	50.91	44.52	49.96	53.09	51.11	52.97	52.41	53.84
17	51.67	53.06	51.75	52.48	50.96	44.48	50.60	53.21	50.91	52.99	52.58	53.86
18	51.90	53.01	51.74	52.44	51.21	45.87	51.14	53.26	50.90	53.16	52.85	53.79
19	52.10	52.94	51.75	52.43	51.45	46.31	51.67	53.47	50.83	53.36	52.82	53.78
20	52.51	52.84	51.86	52.41	51.56	46.28	51.76	53.47	50.82	53.47	52.87	53.73
21	52.72	52.84	52.02	52.49	51.60	45.74	52.07	53.56	50.92	53.57	53.01	53.88
22	52.83	52.84	51.99	52.50	51.54	46.23	52.14	53.59	50.99	53.56	53.25	53.71
23	52.78	52.84	52.13	52.35	51.50	47.09	52.32	53.56	51.02	53.37	53.29	53.62
24	52.63	52.82	52.12	52.30	50.96	47.38	52.39	53.61	50.90	53.31	53.37	53.63
25	52.85	52.86	52.18	52.39	50.35	47.39	52.43	53.66	51.65	53.28	53.31	52.73
26	52.84	52.81	52.22	52.40	49.25	47.60	52.43	53.74	50.75	53.32	53.21	52.28
27	52.83	52.72	52.18	52.38	47.22	47.96	52.47	53.61	50.91	53.29	53.28	52.02
28	52.62	52.78	52.16	52.44	45.53	48.47	52.61	53.69	52.07	53.33	53.35	51.98
29	52.11	52.75	52.16	52.40	---	49.13	52.72	53.68	52.20	53.36	53.50	51.89
30	52.16	52.72	52.23	52.40	---	49.23	52.45	53.52	52.49	53.50	53.56	51.62
31	52.40	---	52.25	52.41	---	49.46	---	52.65	---	53.57	53.50	---
MAX	54.01	53.08	52.78	52.67	52.60	49.46	52.72	53.74	53.78	53.57	53.72	53.99

HAMILTON COUNTY--Continued

391039084291500. Local number, H-11.

LOCATION.--Lat 39°10'39", long 84°29'15", Hydrologic Unit 05090203, 5.6 mi (9.0 km) north of Riverfront Stadium in Cincinnati.

Owner: Procter and Gamble Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 6 in (0.15 m), depth 148 ft (45.1 m), cased.

DATUM.--Land-surface datum is 539 ft (164.287 m) above mean sea level. Measuring point: Floor of instrument shelter 2.23 ft (0.680 m) above land-surface datum.

PERIOD OF RECORD.--August 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 129.72 ft (39.539 m) Oct 25, 1948; minimum daily low, 82.69 ft (25.204 m) Apr. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 83.72 ft (25.518 m) Oct. 29; minimum daily low, 82.69 ft (25.204 m) Apr. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83.57	83.43	83.44	83.28	83.19	83.29	83.11	83.13	82.87	82.92	82.85	82.92
2	83.58	83.48	83.47	83.38	83.27	83.39	83.09	83.13	82.87	82.99	82.88	82.92
3	83.60	83.48	83.50	83.38	83.27	83.39	82.99	83.12	82.95	83.03	82.89	82.93
4	83.62	83.42	83.46	83.32	83.05	83.15	82.99	82.98	83.00	83.05	82.90	82.93
5	83.62	83.45	83.51	83.26	82.98	83.10	82.69	82.90	83.01	83.05	82.93	82.85
6	83.56	83.47	83.51	83.24	83.18	83.20	82.94	82.87	82.85	83.02	82.94	82.81
7	83.58	83.48	83.13	83.08	83.34	83.29	83.09	82.91	82.76	82.92	82.94	82.80
8	83.60	83.52	83.18	83.13	83.39	83.33	83.25	82.94	82.77	82.90	82.93	82.81
9	83.58	83.52	83.32	83.15	83.39	83.34	83.34	82.97	82.81	82.94	82.89	82.81
10	83.55	83.19	83.36	82.76	83.33	83.33	83.35	83.00	82.91	82.96	82.87	82.81
11	83.62	83.31	83.39	83.13	83.33	83.34	83.37	83.03	82.93	82.97	82.88	82.87
12	83.64	83.45	83.36	83.31	83.31	83.32	83.30	83.05	82.91	82.96	82.90	82.89
13	83.63	83.55	83.32	83.36	82.92	82.99	83.37	83.05	82.93	82.96	82.90	82.85
14	83.49	83.56	83.35	83.22	82.97	83.07	83.19	82.99	82.96	82.99	82.89	82.75
15	83.47	83.49	83.30	82.99	83.11	83.09	83.16	82.95	82.98	83.00	82.91	82.81
16	83.49	83.47	83.12	83.12	83.21	83.16	83.19	82.98	82.99	83.01	82.91	82.86
17	83.58	83.47	83.06	83.19	83.24	83.19	83.19	82.99	82.97	83.01	82.85	82.90
18	83.66	83.23	83.17	83.19	83.24	82.75	83.19	83.00	82.93	82.99	82.86	82.90
19	83.66	83.20	83.19	83.16	83.15	82.80	83.15	82.99	82.90	82.97	82.88	82.84
20	83.59	83.22	83.10	83.15	83.17	82.95	83.15	82.99	82.90	82.96	82.89	82.80
21	83.46	83.22	83.17	83.15	83.20	83.04	83.17	82.98	82.93	82.95	82.89	82.87
22	83.54	83.32	83.23	83.26	83.17	82.97	83.18	83.00	82.97	82.95	82.77	82.91
23	83.59	83.42	83.23	83.29	83.04	83.11	83.15	83.02	83.00	82.97	82.77	82.92
24	83.58	83.43	83.28	83.23	82.94	83.23	83.05	83.03	83.00	82.97	82.78	82.92
25	83.43	83.43	83.28	82.92	82.90	83.29	82.97	83.02	82.99	82.85	82.84	82.83
26	83.46	83.27	83.13	82.91	83.00	83.31	82.96	82.94	82.94	82.84	82.86	82.80
27	83.61	83.18	83.05	82.77	83.08	83.31	82.97	82.89	82.94	82.90	82.88	82.78
28	83.71	83.26	82.77	82.83	83.21	83.04	82.97	82.85	82.92	82.91	82.91	82.85
29	83.72	83.34	82.88	82.95	---	82.83	83.07	82.83	82.90	82.91	82.92	82.88
30	83.67	83.43	82.97	83.05	---	82.88	83.11	82.88	82.92	82.90	82.92	82.90
31	83.26	---	83.14	83.12	---	83.03	---	82.89	---	82.89	82.92	---
MAX	83.72	83.56	83.51	83.38	83.39	83.39	83.38	83.13	83.01	83.05	82.94	82.93

391324084272500. Local number, H-9.

LOCATION.--Lat 39°13'24", long 84°27'25", Hydrologic Unit 05090203, 9.1 mi (14.6 km) north of Riverfront Stadium in Cincinnati.
Owner: Diamond National Corporation.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in (0.25 m), depth drilled 168 ft (51.2 m) present depth 163 ft (49.7 m), cased.

DATUM.--Land-surface datum is 555.30 ft (169.255 m), above mean sea level. Measuring point: Floor of instrument shelter, 2.76 ft (0.841 m) above land-surface datum.

PERIOD OF RECORD.--July 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 136.80 ft (41.697 m) Nov. 9, 1947, Feb. 15, 1948; minimum daily low, 80.15 ft (24.430 m) Sept. 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 82.21 ft (25.058 m) Sept. 14; minimum daily low, 80.19 ft (24.442 m) Dec. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80.33	81.41	81.44	80.80	80.95	81.57	81.58	81.45	81.30	81.70	81.98	82.09
2	80.33	81.31	81.63	80.85	81.21	81.70	81.06	81.60	81.50	81.83	82.10	82.11
3	80.39	81.11	81.55	80.68	80.84	81.40	81.35	81.61	81.80	81.82	82.08	81.96
4	80.42	81.24	81.63	80.78	80.47	81.20	80.78	81.43	81.78	81.40	82.20	81.71
5	80.36	81.31	81.68	80.82	80.94	81.30	81.30	81.41	81.60	81.58	82.20	81.57
6	80.44	81.29	81.32	80.73	81.10	81.10	81.80	81.51	81.50	81.61	82.08	81.75
7	80.49	81.37	81.26	80.78	81.34	81.30	81.60	81.33	81.60	81.60	82.00	81.80
8	80.42	81.50	81.71	80.66	81.12	81.40	81.62	81.16	81.50	81.70	82.14	81.81
9	80.29	81.11	81.88	80.53	80.97	81.34	81.51	81.04	81.80	81.74	82.08	81.71
10	80.44	81.21	81.54	80.91	81.09	81.40	81.20	81.00	81.90	81.79	82.08	82.00
11	80.51	81.45	81.18	81.11	81.17	81.40	81.54	80.98	81.74	81.84	82.14	82.10
12	80.45	81.66	80.89	81.00	80.87	81.10	81.68	81.00	81.54	81.80	82.18	82.10
13	80.22	81.71	81.33	80.89	80.57	80.80	81.35	80.80	81.74	81.98	81.94	81.84
14	80.24	81.47	81.17	80.38	81.07	81.20	81.20	80.64	81.80	82.00	81.98	82.21
15	80.25	81.22	80.81	80.48	81.30	81.10	81.40	80.74	81.88	82.00	82.20	82.20
16	80.44	81.50	80.68	80.80	81.40	81.58	81.38	80.80	81.74	81.84	82.10	82.18
17	80.55	81.34	80.90	80.80	81.11	81.50	81.19	80.78	81.50	81.80	82.10	82.10
18	80.63	81.25	81.10	80.80	80.84	81.20	81.21	80.70	81.44	81.88	82.14	81.58
19	80.68	81.09	80.71	80.80	80.80	81.40	81.36	80.70	81.54	81.94	81.96	81.60
20	80.82	81.12	81.02	80.80	81.00	81.40	81.47	80.90	81.60	81.94	81.90	81.91
21	80.90	81.07	81.19	80.90	81.04	81.40	81.44	81.10	81.78	81.94	81.87	82.10
22	81.25	81.31	80.89	81.10	80.61	81.50	81.41	81.20	81.54	82.10	81.92	82.08
23	81.23	81.18	80.84	80.90	80.62	81.50	81.16	81.50	81.68	82.00	81.90	81.89
24	80.88	80.90	80.82	80.50	80.49	81.70	80.78	81.54	81.58	81.80	81.89	81.68
25	80.84	80.64	80.38	80.70	80.78	81.58	81.04	81.40	81.50	81.84	81.92	81.64
26	81.27	80.40	80.48	80.60	80.98	81.58	81.17	81.10	81.44	82.10	81.98	81.69
27	81.51	81.05	80.41	80.70	81.17	81.30	81.28	81.00	81.12	82.14	81.91	81.80
28	81.42	81.13	80.19	80.85	81.33	80.90	81.58	80.90	81.33	82.00	81.96	82.05
29	81.31	81.45	80.47	80.84	---	81.20	81.66	81.20	81.57	81.91	82.06	81.95
30	81.07	81.48	80.52	80.90	---	81.20	81.56	81.30	81.57	81.80	81.96	81.81
31	81.26	---	80.70	80.84	---	81.68	---	81.14	---	81.75	82.01	---
MAX	81.51	81.71	81.88	81.11	81.40	81.70	81.80	81.61	81.90	82.14	82.20	82.21

HAMILTON COUNTY--Continued

391634084152600. Local number, H-22.

LOCATION.--Lat 39°16'34", long 84°15'26", Hydrologic Unit 05090202, on right bank of Little Miami River 0.5 mi (0.8 km) upstream from McKinney Road bridge at Loveland.
Owner: Loveland Water Works.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 24 in (0.61 m), depth 70 ft (21.3 m) screened below 48 ft (14.6 m).

PERIOD OF RECORD.--June 1967 to Sept. 1974, June to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV 04...	680	7.3	<10	14	304	0	249	24	55	30
JUN 14...	764	7.4	10	22	316	0	260	20	54	45

DATE	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV 04...	446	.48	.01	.02	.09	<10	1800	3	60
JUN 14...	465	.86	.00	.00	.02	10	120	2	40

HAMILTON COUNTY--Continued

391748084393800. Local number, H-19.
LOCATION.--Lat 39°17'48", long 84°39'38", Hydrologic Unit 05080002, on left bank of Great Miami River 1.3 mi (2.1 km) southwest of Venice.
Owner: Southwest Ohio Water Company.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Collector-type industrial supply water-table well, diameter 20 ft (6.1 m), depth 144 ft (43.9 m) horizontal intakes at 95-100 ft (29.0-30.5 m).
PERIOD OF RECORD.--1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 23...	1700	780	7.4	14.0	350	91	30	347	0	285
FEB 09...	1300	810	7.4	15.0	360	92	31	352	0	289
MAY 20...	1215	790	7.3	17.0	370	100	30	348	0	290
AUG 09...	0930	800	7.5	16.0	360	96	30	340	0	280

DATE	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
NOV 23...	22	80	42	.3	430	.56	.02	--	--	--
FEB 09...	22	82	44	.2	432	.64	.01	--	--	--
MAY 20...	28	78	47	.2	507	.99	.01	--	--	--
AUG 09...	14	77	48	.2	740	.66	.01	0	0	10

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV 23...	--	--	--	90	--	--	340	--	--
FEB 09...	--	--	--	80	--	--	340	--	--
MAY 20...	--	--	--	80	--	--	340	--	--
AUG 09...	0	5	3	140	0	0	300	40	40

391817084393300. Local number, H-4.

LOCATION.--Lat 39°18'17", long 84°39'33", Hydrologic Unit 05080002, 0.7 mi (1.1 km) southwest of Ross. Owner: Southwestern Ohio Water Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (0.15 m), depth 100 ft (30.3 m), cased.

DATUM.--Land-surface datum (revised) is 541.57 ft (165.071 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m) above land-surface datum.

REMARKS.--Land-surface datum formerly reported as 540 ft (164.592 m) above mean sea level.

PERIOD OF RECORD.--December 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 32.16 ft (9.802 m) Nov. 20, 1971; minimum daily low, 11.60 ft (3.536 m) June 16, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 30.91 ft (9.421 m) Feb. 11; minimum daily low, 24.11 ft (7.349 m) Apr. 18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.87	28.41	28.71	28.57	30.57	---	27.55	25.17	25.68	27.22	28.20	29.25
2	27.87	28.53	28.82	28.54	30.59	---	27.55	24.95	25.79	27.27	28.21	29.33
3	27.65	28.61	28.91	28.56	30.64	---	27.35	24.99	25.89	27.27	28.27	29.35
4	27.49	28.67	29.01	28.83	30.68	---	26.92	25.04	26.04	27.22	28.35	29.35
5	27.67	28.72	29.01	29.06	30.66	---	26.34	25.07	26.10	27.25	28.43	29.24
6	27.77	28.75	28.93	29.19	30.57	---	25.89	25.07	26.14	27.27	28.47	29.16
7	27.86	28.68	29.07	29.30	30.69	---	25.56	25.07	26.17	27.37	28.47	29.23
8	27.96	28.48	29.18	29.40	30.70	---	25.30	25.07	26.27	27.43	28.33	29.31
9	27.96	28.62	29.22	29.44	30.83	---	24.87	24.88	26.42	27.50	28.35	29.40
10	27.81	28.69	29.29	29.42	30.88	28.66	24.49	24.88	26.49	27.50	28.40	29.50
11	27.59	28.74	29.31	29.51	30.91	28.66	24.19	24.88	26.50	27.39	28.45	29.50
12	27.74	28.80	29.15	29.59	30.77	28.66	24.26	24.89	26.33	27.42	28.50	29.53
13	27.91	28.87	28.97	29.60	30.59	28.55	24.33	24.90	26.18	27.52	28.54	29.60
14	28.02	28.85	29.15	29.60	30.52	28.20	24.40	24.87	26.27	27.60	28.54	29.65
15	28.12	28.75	29.26	29.83	30.22	28.17	24.48	24.85	26.41	27.63	28.47	29.68
16	28.19	28.88	29.34	29.85	---	28.17	24.49	24.92	26.51	27.66	28.54	29.72
17	28.22	28.97	29.40	29.87	---	28.17	24.34	25.01	26.61	27.61	28.58	29.77
18	28.20	29.04	29.43	30.00	---	28.22	24.11	25.08	26.70	27.54	28.59	29.79
19	28.27	29.10	29.29	30.06	---	28.22	24.24	25.15	26.80	27.63	28.64	29.72
20	28.29	29.13	29.37	30.12	---	28.07	24.41	25.21	26.84	27.67	28.66	29.72
21	28.33	29.02	29.49	30.16	---	27.79	24.51	25.30	26.85	27.72	28.66	29.72
22	28.37	28.79	29.56	30.16	---	27.69	24.51	25.36	26.89	27.76	28.66	29.74
23	28.41	28.96	29.52	30.05	---	27.73	24.31	25.47	26.96	27.82	28.68	29.76
24	28.41	29.08	29.46	30.12	---	27.77	24.25	25.54	27.02	27.83	28.77	29.84
25	28.29	29.12	29.26	30.19	---	27.82	24.54	25.58	27.08	27.83	28.86	29.87
26	28.34	29.01	29.10	30.29	---	27.83	24.74	25.65	27.15	27.92	28.96	29.81
27	28.41	28.67	28.97	30.37	---	27.75	24.88	25.70	27.18	27.99	29.07	29.85
28	28.47	28.46	28.85	30.46	---	27.48	25.03	25.78	27.18	28.06	29.13	29.89
29	28.51	28.33	28.73	30.49	---	27.46	25.15	25.78	27.20	28.17	29.20	29.93
30	28.57	28.54	28.67	30.44	---	27.51	25.20	25.51	27.21	28.23	29.21	29.98
31	28.57	---	28.60	30.48	---	27.53	---	25.55	---	28.25	29.21	---
MAX	28.57	29.13	29.56	30.49	---	---	27.55	25.78	27.21	28.25	29.21	29.98

401853080361100. Local number JE-10.
LOCATION.--Lat 40°18'53", long 80°36'11", Hydrologic Unit 05030101, on right bank of Ohio River 0.4 mi (0.6 km) upstream from Cross Creek, at Mingo Junction.
Owner: City of Mingo Junction.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Collector type public supply water-table well, diameter 13 ft (4.0 m), depth 74 ft (22.6 m), cased.
PERIOD OF RECORD.--June 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
NOV 09...	674	7.0	<10	33	114	0	94	18	160	41
JUN 02...	631	6.9	2	31	90	0	74	18	190	40
AUG 30...	660	7.0	10	32	114	0	94	10	150	40

DATE	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
NOV 09...	414	.05	.01	1.0	.03	<10	280	3	1700
JUN 02...	412	.06	.00	1.0	.01	20	290	5	1400
AUG 30...	419	.08	.00	1.2	.01	<10	210	5	1600

LICKING COUNTY

400302082250800. Local number, LI-1.

LOCATION.--Lat 40°03'02", long 82°25'08", Hydrologic Unit 05040006, at Roper Corporation in Newark. Owner: Roper Corporation.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 68 ft (20.7 m) cased.

DATUM.--Land-surface datum is 850 ft (259.080 m) above mean sea level. Measuring point: Floor of instrument shelter, 2.95 ft (0.899 m) above land-surface datum.

PERIOD OF RECORD.--August 1951 to September 1977 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.24 ft (7.998 m) Mar. 5, 1964; minimum daily low, 21.80 ft (6.645 m) Feb. 10, 16, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 24.35 ft (7.422 m) Feb. 6; minimum daily low, 23.28 ft (7.096 m) Apr. 13.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.07	24.11	24.11	24.23	24.32	24.07	23.67	23.42	23.61	23.81	23.71	23.72
2	24.07	24.05	24.18	24.25	24.33	24.06	23.60	23.41	23.66	23.82	23.72	23.72
3	24.09	23.98	24.15	24.15	24.19	23.98	23.73	23.44	23.70	23.80	23.71	23.73
4	24.10	24.02	24.15	24.18	24.22	24.00	23.49	23.35	23.66	23.78	23.75	23.71
5	24.08	24.01	24.17	24.21	24.34	24.02	23.64	23.39	23.61	23.75	23.74	23.73
6	24.13	24.00	24.06	24.18	24.35	23.98	23.63	23.41	23.68	23.72	23.73	23.76
7	24.12	24.01	24.11	24.25	24.33	23.96	23.52	23.41	23.67	23.73	23.73	23.75
8	24.07	24.03	24.19	24.23	24.27	23.96	23.53	23.40	23.66	23.74	23.71	23.76
9	24.12	23.94	24.20	24.23	24.23	23.92	23.45	23.39	23.74	23.77	23.72	23.75
10	24.14	24.01	24.13	24.30	24.28	23.93	23.34	23.38	23.74	23.76	23.71	23.81
11	24.14	24.04	24.17	24.32	24.24	23.94	23.37	23.39	23.66	23.72	23.71	23.82
12	24.11	24.08	24.14	24.27	24.21	23.86	23.35	23.39	23.67	23.73	23.70	23.79
13	24.09	24.06	24.23	24.24	24.24	23.92	23.28	23.33	23.68	23.75	23.65	23.73
14	24.10	24.00	24.13	24.16	24.26	23.95	23.30	23.39	23.70	23.73	23.68	23.84
15	24.15	24.03	24.07	24.20	24.27	23.87	23.32	23.42	23.70	23.68	23.73	23.82
16	24.17	24.08	24.10	24.28	24.22	23.93	23.33	23.44	23.67	23.67	23.61	23.76
17	24.16	24.02	24.19	24.24	24.18	23.86	23.31	23.42	23.66	23.67	23.63	23.73
18	24.17	24.05	24.22	24.21	24.14	23.94	23.30	23.42	23.70	23.66	23.64	23.67
19	24.08	24.05	24.11	24.23	24.14	23.92	23.33	23.44	23.71	23.65	23.60	23.65
20	24.10	24.04	24.13	24.26	24.14	23.88	23.35	23.46	23.73	23.67	23.61	23.68
21	24.12	24.06	24.22	24.26	24.17	23.82	23.37	23.48	23.77	23.67	23.57	23.69
22	24.20	24.12	24.18	24.31	24.15	23.87	23.36	23.50	23.76	23.71	23.62	23.66
23	24.17	24.12	24.25	24.25	24.15	23.79	23.32	23.53	23.74	23.69	23.61	23.62
24	24.06	24.07	24.23	24.16	24.12	23.76	23.32	23.52	23.72	23.63	23.68	23.59
25	24.10	24.05	24.10	24.20	24.14	23.72	23.35	23.50	23.75	23.69	23.69	23.62
26	24.15	24.05	24.18	24.23	24.14	23.71	23.39	23.51	23.77	23.72	23.65	23.62
27	24.16	24.13	24.18	24.23	24.14	23.62	23.40	23.53	23.76	23.69	23.68	23.65
28	24.13	24.10	24.15	24.34	24.07	23.59	23.52	23.53	23.75	23.65	23.70	23.66
29	24.09	24.16	24.24	24.28	---	23.66	23.50	23.60	23.80	23.64	23.68	---
30	24.03	24.14	24.20	24.30	---	23.66	23.46	23.62	23.79	23.67	23.68	---
31	24.12	---	24.23	24.26	---	23.74	---	23.55	---	23.67	23.71	---
MAX	24.20	24.16	24.25	24.34	24.35	24.07	23.73	23.62	23.80	23.82	23.75	23.84

MADISON COUNTY

395740083255700. Local number, M-3.

LOCATION.--Lat 39°57'40", long 83°25'57", Hydrologic Unit 05060002, 5.2 mi (8.4 km) north of London.
Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in (0.3 m), depth 290 ft (88.4 m) cased to 145 ft (44.2 m).

DATUM.--Land-surface datum is 1,020 ft (310.896 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m) above land-surface datum.

PERIOD OF RECORD.--November 1974 tc current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 9.13 ft (2.783 m) Feb. 7-8, 1977; minimum daily low, 3.93 ft (1.198 m) Feb. 25, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 9.13 ft (2.783 m) Feb. 7-8; minimum daily low, 5.64 ft (1.719 m) Apr. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.81	8.10	8.24	8.67	9.03	7.80	6.30	6.23	6.63	7.35	8.23	8.56
2	7.86	8.08	8.33	8.72	9.04	7.80	6.16	6.22	6.71	7.43	8.26	8.58
3	7.91	7.98	8.30	8.69	8.96	7.73	6.14	6.23	6.82	7.45	8.29	8.57
4	7.93	8.02	8.34	8.64	8.89	7.50	5.95	6.08	6.83	7.45	8.35	8.58
5	7.92	8.01	8.35	8.67	8.98	7.46	5.64	6.02	6.76	7.47	8.42	8.56
6	7.94	8.00	8.31	8.70	9.06	7.42	5.75	6.04	6.71	7.47	8.45	8.60
7	7.98	8.03	8.21	8.65	9.13	7.31	5.75	6.09	6.75	7.49	8.44	8.65
8	7.98	8.09	8.34	8.71	9.13	7.26	5.77	6.05	6.74	7.52	8.40	8.67
9	7.92	8.01	8.39	8.72	9.05	7.17	5.75	6.06	6.85	7.84	8.43	8.65
10	8.01	7.94	8.34	8.62	9.04	7.10	5.71	6.14	6.91	8.01	8.46	8.73
11	8.05	8.01	8.38	8.77	9.04	7.09	5.79	6.32	6.91	8.09	8.44	8.78
12	8.09	8.10	8.27	8.83	9.00	7.00	5.82	6.25	6.92	7.86	8.35	8.78
13	8.02	8.14	8.41	8.82	8.87	6.82	5.79	6.28	7.04	7.83	8.25	8.70
14	7.99	8.10	8.40	8.66	8.88	6.80	5.81	6.32	7.04	7.85	8.21	8.75
15	8.00	8.03	8.29	8.66	8.84	6.75	5.84	6.35	7.05	7.84	8.25	8.76
16	8.12	8.11	8.27	8.77	---	6.72	5.97	6.59	7.05	7.87	8.20	8.74
17	8.18	8.06	8.36	8.72	8.72	6.71	5.93	6.58	7.02	7.84	8.16	8.73
18	8.23	8.01	8.43	8.70	8.73	6.52	5.93	6.55	7.06	7.88	8.41	8.70
19	8.16	8.03	8.39	8.70	8.67	6.59	5.95	6.53	7.06	7.89	8.27	8.55
20	8.07	8.02	8.33	8.74	8.64	6.51	6.11	6.59	7.09	7.91	8.28	8.45
21	8.10	8.04	8.48	8.79	8.63	6.54	6.10	6.52	7.17	7.83	8.25	8.36
22	8.21	8.16	8.51	8.89	8.53	6.39	6.07	6.49	7.23	7.93	8.21	8.27
23	8.22	8.18	8.47	8.93	8.54	6.42	6.01	6.58	7.34	7.95	8.26	8.15
24	8.12	8.18	8.55	8.80	8.29	6.38	5.99	6.62	7.24	7.94	8.30	8.04
25	8.07	8.14	8.44	8.71	8.12	6.34	5.97	6.58	7.20	7.99	8.39	8.01
26	8.13	8.08	8.39	8.71	8.06	6.35	6.03	6.69	7.25	8.11	8.41	7.94
27	8.20	8.14	8.42	8.72	7.89	6.30	6.06	6.72	7.40	8.17	8.43	7.98
28	8.24	8.17	8.34	8.81	7.86	6.12	6.18	6.56	7.25	8.17	8.47	7.99
29	8.17	8.27	8.45	8.83	---	6.15	6.23	6.60	7.29	8.16	8.47	8.00
30	8.11	8.26	8.55	8.89	---	6.14	6.25	6.68	7.37	8.16	8.48	7.98
31	8.06	---	8.58	8.91	---	6.30	---	6.65	---	8.15	8.51	---
MAX	8.24	8.27	8.58	8.93	9.13	7.80	6.30	6.72	7.40	8.17	8.51	8.78

MAHONING COUNTY

410042080453800. Local number, MA-1.

LOCATION.--Lat 41°00'42", long 80°45'38", Hydrologic Unit, 05030103, in County Fairgrounds at south edge of Canfield.

Owner: Canfield Water Department.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (0.2 m), depth 170 ft (51.8 m) cased.

DATUM.--Land-surface datum is 1,160 ft (353.568 m) above mean sea level. Measuring point: Floor of instrument shelter at land-surface datum.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 110.75 ft (33.757 m) Sept. 18, 1946; minimum daily low, 30.35 ft (9.251 m) Apr. 23, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 42.52 ft (12.960 m) Aug. 8; minimum daily low, 33.88 ft (10.327 m) Apr. 24.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	35.87	35.12		---	34.88	34.58	34.03	36.36	36.02	35.41	
2	---	35.84	35.16		---	35.05	34.55	39.05	36.42	36.10	35.42	
3	---	35.78	35.19		---	35.14	34.18	35.78	36.44	39.73	35.64	
4	---	35.76	35.17		---	35.10	34.19	35.07	36.43	38.01	35.70	
5	---	35.73	35.12		---	35.05	34.15	34.76	36.31	37.32	36.60	
6	---	35.71	35.05		---	35.16	34.25	34.66	36.19	36.80	36.69	
7	---	35.64	34.91		---	35.20	34.25	34.60	36.22	36.34	42.52	
8	---	35.57	34.93		---	35.23	34.27	34.54	36.28	36.07	---	
9	---	35.52	34.94		---	35.23	34.24	39.34	36.13	36.02	---	
10	---	35.44	34.94		---	35.25	34.18	36.03	36.18	35.94	---	
11	---	35.44	34.92		---	35.31	34.17	35.19	36.17	35.84	---	
12	---	35.45	34.84		---	35.29	34.19	35.73	36.12	35.76	---	
13	---	35.45	34.88		---	34.84	34.19	36.39	36.14	35.78	---	
14	---	35.37	34.88		---	34.97	34.18	37.89	36.17	35.85	---	
15	---	35.28	34.89		34.61	35.05	34.22	36.80	36.23	35.85	---	
16	---	35.30	---		34.60	35.24	34.22	36.44	36.26	35.85	---	
17	---	35.30	---		34.61	35.24	34.17	36.30	36.28	35.65	---	
18	---	35.49	---		34.61	35.08	34.16	36.15	35.89	35.67	---	
19	---	35.66	---		34.59	34.80	34.15	36.01	35.97	35.68	---	
20	---	35.65	---		34.56	34.80	34.16	35.96	36.00	35.67	---	
21	---	35.53	---		34.56	34.76	34.16	38.35	36.08	35.68	---	
22	36.73	35.42	---		34.54	34.73	34.17	37.47	36.11	35.57	---	
23	36.77	35.40	---		34.45	34.74	34.13	36.68	36.13	35.62	---	
24	36.76	35.34	---		34.45	34.77	33.88	36.53	36.13	35.57	---	
25	36.70	35.29	---		34.38	34.78	33.95	36.43	36.12	35.49	---	
26	36.75	35.17	---		34.48	34.78	33.95	36.44	36.09	35.62	---	
27	36.66	35.11	---		34.38	34.74	33.97	36.44	36.20	35.65	---	
28	36.43	35.08	---		34.63	34.64	33.98	37.00	36.15	35.69	---	
29	36.27	35.02	---		---	34.50	34.08	36.55	36.02	35.69	---	
30	36.15	35.09	---		---	34.53	34.08	36.43	36.07	35.57	---	
31	35.93	---	---		---	34.58	---	36.37	---	35.49	---	
MAX	---	35.87	---		---	35.31	34.58	39.34	36.44	39.73	---	

MARION COUNTY

403413083170500. Local number, MN-4.

LOCATION.--Lat 40°34'13", long 83°17'05", Hydrologic Unit 05060001, 1.9 mi (3.1 km) southeast of New Bloomington. Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in (0.3 m), depth 290 ft (88.4 m), cased to 33 ft (10.1 m).

DATUM.--Land-surface datum is 915.96 ft (279.185 m) above mean sea level. Measuring point: Floor of shelter 3.00 ft (0.914 m) above land-surface datum.

PERIOD OF RECORD.--January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 18.83 ft (5.739 m) Oct. 4, 1973; minimum daily low, 0.61 ft (0.186 m) Mar. 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 18.57 ft (5.660 m) Aug. 10; minimum daily low, 5.60 ft (1.707 m) May 9.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.15	8.77	8.19	8.63	9.24	8.23	6.61	6.09	6.63	7.21	17.03	9.76
2	8.07	8.33	8.28	8.67	9.25	8.20	6.40	6.06	6.72	7.25	17.21	9.75
3	8.07	8.16	8.27	8.63	9.14	8.14	6.31	6.07	7.19	7.25	17.39	9.77
4	8.08	8.10	8.30	8.60	9.05	7.93	6.06	5.95	6.78	7.21	17.53	9.76
5	11.55	8.11	8.31	8.65	9.22	7.89	5.67	5.74	6.71	7.19	17.09	9.73
6	12.97	8.10	8.26	8.56	9.29	7.88	5.83	5.64	6.70	7.18	17.14	9.79
7	15.52	8.12	8.16	8.66	9.32	7.82	5.81	5.65	6.72	7.20	17.11	9.82
8	16.65	8.29	8.30	8.67	9.29	7.79	5.88	5.61	6.72	7.28	17.13	9.85
9	15.63	8.09	8.32	8.70	9.16	7.68	5.85	5.60	6.81	7.39	12.81	9.82
10	12.11	8.04	8.30	8.65	9.15	7.66	5.79	5.61	6.86	7.44	18.57	---
11	14.62	8.12	8.34	8.80	9.16	7.65	5.86	5.68	6.81	7.42	10.14	---
12	15.19	8.17	8.24	8.85	9.12	7.58	6.16	5.72	6.77	7.45	9.72	---
13	15.43	8.20	8.36	8.81	8.98	7.40	5.88	5.70	6.81	7.56	9.46	---
14	15.81	8.14	8.34	8.65	9.02	7.43	5.93	5.77	6.84	7.64	9.27	---
15	15.70	9.59	8.88	8.70	9.06	7.40	5.98	5.88	6.87	7.67	9.24	---
16	15.70	8.21	8.25	8.83	9.05	7.43	6.04	5.97	6.87	7.73	9.14	---
17	15.77	8.13	8.26	8.81	9.01	7.38	6.07	6.01	6.86	7.73	9.16	---
18	11.85	8.02	8.29	8.77	8.90	7.11	6.10	6.02	6.85	7.81	9.21	---
19	10.00	8.04	8.25	8.77	8.83	7.12	6.13	6.10	6.90	7.83	9.24	---
20	15.23	8.04	9.88	8.83	8.83	6.92	6.15	6.14	6.91	8.27	9.23	---
21	12.52	8.05	8.40	8.88	8.84	6.92	6.20	6.21	7.05	11.99	9.16	---
22	9.95	8.16	8.40	8.96	8.75	6.77	6.21	6.28	7.11	8.31	9.13	---
23	9.39	8.16	8.37	8.97	8.76	6.76	6.13	6.35	7.13	8.03	9.18	---
24	9.03	8.14	8.41	8.87	8.59	6.65	6.08	6.37	7.44	7.88	9.22	---
25	8.80	8.10	8.28	8.85	8.49	6.61	6.01	6.38	7.14	11.47	9.30	---
26	8.72	8.01	8.26	8.85	8.48	6.60	6.01	6.42	7.19	13.50	9.43	---
27	8.94	8.10	8.29	8.90	8.34	6.54	6.00	6.46	7.65	13.45	9.57	---
28	8.73	8.11	8.23	9.02	8.31	6.39	6.07	6.49	7.25	10.08	9.66	---
29	14.11	8.19	8.36	9.04	---	6.42	6.13	6.64	7.24	14.71	9.73	---
30	10.81	8.21	8.40	9.12	---	6.40	6.12	6.73	7.22	16.05	9.76	---
31	8.89	---	8.49	9.11	---	6.55	---	6.70	---	16.61	9.74	---
MAX	16.65	9.59	9.88	9.12	9.32	8.23	6.61	6.73	7.65	16.61	18.57	---

MIAMI COUNTY

395848084085500. Local number, MI-3.

LOCATION.--Lat 39°58'48", long 84°08'55", Hydrologic Unit 05080001, 2.0 mi (3.2 km) northeast of Tipp City. Owner: Trojan Farms Incorporated.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in (0.13 m), depth 48 ft (14.6 m), cased.

DATUM.--Land-surface datum is 804.78 ft (245.297 m) above mean sea level. Measuring point: Floor of shelter 3.50 ft (1.067 m) above land-surface datum.

PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 15.61 ft (4.758 m) Feb. 4, 1971; minimum daily low, 7.53 ft (2.295 m) Feb. 25, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 12.68 ft (3.865 m) Jan. 26-28; minimum daily low, 9.87 ft (3.008 m) Apr. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.26	12.41	12.54	12.64	12.66	11.34	11.28	10.79	11.00	11.18	11.91	12.36
2	12.27	12.41	12.55	12.64	12.66	11.35	11.25	10.82	11.04	10.99	11.93	12.37
3	12.28	12.42	12.55	12.64	12.65	11.36	10.31	10.83	11.07	11.03	11.96	12.39
4	12.29	12.43	12.56	12.65	12.65	11.34	9.95	10.83	11.10	11.07	11.99	12.40
5	12.29	12.44	12.56	12.65	12.65	11.26	9.87	10.35	11.11	11.11	12.01	12.41
6	12.30	12.44	12.55	12.65	12.65	11.24	9.91	10.26	11.15	11.15	12.04	12.41
7	12.30	12.45	12.56	12.66	12.65	11.25	9.94	10.20	11.18	11.18	12.05	12.42
8	12.30	12.45	12.56	12.66	12.65	11.26	9.99	10.16	11.20	11.23	12.06	12.43
9	12.32	12.45	12.56	12.66	12.64	11.28	10.03	10.17	11.24	11.26	12.07	12.45
10	12.32	12.46	12.56	12.66	12.64	11.30	10.07	10.19	11.27	11.30	12.09	12.46
11	12.33	12.46	12.56	12.66	12.63	11.32	10.13	10.23	11.29	11.33	12.11	12.47
12	12.33	12.46	12.56	12.66	12.48	11.32	10.17	10.26	11.32	11.37	12.12	12.47
13	12.34	12.46	12.56	12.65	12.28	11.28	10.21	10.29	11.35	11.40	12.13	12.48
14	12.35	12.47	12.56	12.66	11.88	11.24	10.26	10.34	11.37	11.43	12.12	12.46
15	12.36	12.47	12.56	12.66	11.88	11.24	10.32	10.39	11.39	11.46	12.13	12.45
16	12.37	12.48	12.58	12.67	11.88	11.25	10.36	10.43	11.42	11.49	12.14	12.44
17	12.37	12.48	12.60	12.67	11.88	11.25	10.40	10.47	11.44	11.52	12.17	12.41
18	12.38	12.48	12.60	12.67	11.90	11.24	10.44	10.51	11.46	11.55	12.18	12.42
19	12.38	12.49	12.60	12.67	11.91	11.24	10.49	10.55	11.48	11.58	12.20	12.43
20	12.39	12.49	12.61	12.67	11.87	11.22	10.53	10.58	11.51	11.61	12.21	12.44
21	12.39	12.50	12.61	12.67	11.86	11.22	10.57	10.62	11.54	11.63	12.21	12.45
22	12.40	12.51	12.61	12.67	11.86	11.22	10.59	10.66	11.56	11.65	12.24	12.46
23	12.40	12.51	12.62	12.67	11.58	11.22	10.62	10.70	11.58	11.67	12.25	12.46
24	12.39	12.51	12.62	12.67	11.38	11.22	10.65	10.73	11.60	11.70	12.26	12.47
25	12.39	12.53	12.62	12.67	11.29	11.22	10.68	10.76	11.63	11.73	12.27	12.48
26	12.40	12.53	12.63	12.68	11.30	11.22	10.71	10.80	11.64	11.77	12.29	12.49
27	12.41	12.53	12.63	12.68	11.30	11.22	10.74	10.83	11.66	11.79	12.30	12.51
28	12.41	12.53	12.63	12.68	11.30	11.22	10.76	10.86	11.67	11.81	12.32	12.51
29	12.41	12.54	12.64	12.67	---	11.24	10.76	10.91	11.70	11.83	12.33	12.51
30	12.41	12.54	12.64	12.67	---	11.25	10.76	10.94	11.71	11.85	12.33	12.52
31	12.41	---	12.64	12.66	---	11.28	---	10.97	---	11.88	12.35	---
MAX	12.41	12.54	12.64	12.68	12.66	11.36	11.28	10.97	11.71	11.88	12.35	12.52

400208084112900. Local number, MI-44.
LOCATION.--Lat 40°02'08", long 84°11'29", Hydrologic Unit 05080001, on left bank of Great Miami River 0.7 mi (1.1 km) east of city hall in Troy.
Owner: City of Troy.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 26 in (0.66 m), depth 105 ft (32.0 m) screened below 89 ft (27.1 m).
PERIOD OF RECORD.--August 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
NOV									
23...	0930	680	7.2	13.0	310	72	32	356	0
FEB									
08...	1100	690	7.4	13.0	310	70	33	354	0
MAY									
19...	1145	700	7.6	16.0	330	78	33	360	0
AUG									
08...	1130	750	7.4	13.0	320	75	32	350	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV									
23...	292	36	56	20	.9	355	.00	.00	--
FEB									
08...	290	23	55	22	.9	318	.01	.00	--
MAY									
19...	300	14	57	23	.8	411	.01	.00	--
AUG									
08...	290	22	55	20	1.0	394	.02	.00	0

DATE	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV									
23...	--	--	--	1300	--	--	30	--	--
FEB									
08...	--	--	--	1400	--	--	40	--	--
MAY									
19...	--	--	--	1900	--	--	60	--	--
AUG									
08...	0	10	0	1500	0	0	40	30	30

MONTGOMERY COUNTY

393853084170700. Local number, MT-63.

LOCATION.--Lat 39°38'53", long 84°17'07", Hydrologic Unit 05080002, on left bank of Great Miami River 0.4 mi (0.6 km) north of city hall in Miamisburg.

Owner: Miamisburg Box Board Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled industrial supply water-table well, diameter 16 in (0.41 m), depth 95 ft (29.0 m) cased below 73 ft (22.3 m).

PERIOD OF RECORD.--September 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 23...	1230	950	7.2	13.0	400	100	36	436	0	358
FEB 08...	1400	960	7.3	11.0	470	110	48	438	0	359
MAY 19...	1500	1000	7.2	19.0	430	110	38	436	0	360
AUG 08...	1820	1000	7.4	18.0	480	130	38	430	0	350

DATE	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
NOV 23...	44	84	54	.5	498	.00	.01	--	--	--
FEB 08...	35	89	55	.4	501	.00	.01	--	--	--
MAY 19...	44	86	59	.3	468	.01	.00	--	--	--
AUG 08...	27	87	57	.3	627	.05	.00	2	1	10

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV 23...	--	--	--	2400	--	--	160	--	--
FEB 08...	--	--	--	2900	--	--	170	--	--
MAY 19...	--	--	--	2800	--	--	180	--	--
AUG 08...	0	3	2	2900	0	0	150	40	40

MONTGOMERY COUNTY--Continued

394025084162800. Local number, MT-49.

LOCATION.--Lat 39°40'25", long 84°16'28", Hydrologic Unit 05080002, 1.2 mi (1.9 km) west of city hall in West Carrollton.

Owner: E. F. Stenger.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (0.15 m), depth 220 ft (67.1 m), cased.

DATUM.--Land-surface datum is 714.61 ft (217.813 m) above mean sea level. Measuring point: Floor of shelter 2.50 ft (0.762 m) above land-surface datum.

REMARKS.--Land-surface datum formerly reported as 715 ft (217.932 m) above mean sea level.

PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 36.30 ft (11.064 m) Dec. 8, 1974; minimum daily low, 10.58 ft (3.225 m) Jan. 23, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 33.66 ft (10.260 m) Sept. 8-9; minimum daily low, 29.45 ft (8.976 m) Oct. 3.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.64	30.60	31.35	32.40	33.28	32.67	32.32	30.87	31.09	31.87	32.67	33.48
2	29.49	30.63	31.41	32.41	33.29	32.65	32.14	31.02	31.12	31.74	32.75	33.51
3	29.45	30.67	31.42	32.44	33.31	32.54	31.96	31.07	31.22	31.69	32.80	33.39
4	29.69	30.74	31.47	32.47	33.35	32.51	31.49	31.04	31.11	31.66	32.85	33.39
5	29.76	30.77	31.50	32.51	33.39	32.48	31.32	30.96	31.10	31.85	32.89	33.40
6	29.86	30.64	31.50	32.51	33.42	32.36	31.24	30.86	31.26	31.84	32.77	33.59
7	29.89	30.66	31.56	32.56	33.43	32.36	31.11	30.65	31.34	31.90	32.78	33.63
8	29.89	30.74	31.63	32.58	33.43	32.29	31.11	30.48	31.37	31.95	32.89	33.66
9	29.74	30.80	31.64	32.59	33.43	32.40	30.94	30.55	31.45	31.84	32.95	33.66
10	29.74	30.77	31.69	32.65	33.46	32.43	30.84	30.54	31.48	31.84	33.00	33.52
11	29.99	30.81	31.71	32.67	33.47	32.49	30.95	30.56	31.33	32.01	33.05	33.46
12	30.05	30.85	31.75	32.70	33.45	32.34	30.95	30.58	31.32	32.05	33.06	33.61
13	30.11	30.86	31.79	32.71	33.41	32.27	30.93	30.56	31.49	32.11	32.91	33.63
14	30.12	30.86	31.80	32.75	33.40	32.34	30.95	30.42	31.56	32.15	32.86	33.64
15	30.20	30.92	31.83	32.80	33.38	32.31	30.94	30.41	31.59	32.20	32.98	33.63
16	30.07	30.96	31.87	32.84	33.33	32.31	30.82	30.60	31.63	32.08	33.02	33.61
17	30.07	30.94	31.93	32.86	33.30	32.34	30.79	30.65	31.67	32.09	33.06	33.43
18	30.28	31.00	31.95	32.89	33.29	32.31	30.94	30.71	31.51	32.26	33.03	33.35
19	30.31	31.04	31.96	32.92	33.28	32.23	31.00	30.74	31.49	32.31	33.11	33.41
20	30.39	31.06	32.02	32.97	33.28	32.14	30.97	30.76	31.65	32.38	32.99	33.38
21	30.37	31.10	32.06	33.00	33.29	32.20	31.02	30.63	31.71	32.43	32.97	33.40
22	30.44	31.15	32.07	33.03	33.32	32.29	31.03	30.62	31.73	32.45	33.12	33.37
23	30.28	31.20	32.13	33.04	33.32	32.28	30.87	30.81	31.76	32.34	33.17	33.39
24	30.22	31.19	32.12	33.06	33.18	32.28	30.81	30.87	31.77	32.33	33.23	33.25
25	30.48	31.20	32.15	33.09	33.03	32.26	30.96	30.89	31.64	32.52	33.25	33.21
26	30.55	31.22	32.18	33.11	32.91	32.12	31.03	30.91	31.63	32.60	33.27	33.39
27	30.62	31.26	32.18	33.13	32.79	32.07	31.05	30.96	31.78	32.65	33.17	33.47
28	30.59	31.26	32.23	33.16	32.74	32.20	31.06	30.82	31.79	32.69	33.18	33.51
29	30.64	31.32	32.27	33.16	---	32.29	31.09	30.86	31.72	32.71	33.34	33.57
30	30.47	31.34	32.31	33.19	---	32.28	30.94	30.88	31.80	32.55	33.35	33.59
31	30.45	---	32.36	33.22	---	32.32	---	31.04	---	32.49	33.41	---
MAX	30.64	31.34	32.36	33.22	33.47	32.67	32.32	31.07	31.80	32.71	33.41	33.66

MUSKINGUM COUNTY

395753081593500. Local number, MU-10.

LOCATION.--Lat 39°57'53", long 81°59'35", Hydrologic Unit 05040004, on left bank of Muskingum River 0.2 mi (0.3 km) north of waterworks at Zanesville.
Owner: City of Zanesville.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 18 in (0.46 m), depth 65 ft (19.8 m) cased.

PERIOD OF RECORD.--June 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
MAY 19...	976	7.3	10	48	214	0	180	17	150	110

DATE	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
MAY 19...	611	.43	.00	.60	.01	40	280	3	670

MUSKINGUM COUNTY--Continued

395804081593200. Local number, MU-1A.

LOCATION.--Lat 39°58'04", long 81°59'32", Hydrologic Unit 05040004, 2.2 mi (3.5 km) northeast of the "Y" bridge in Zanesville.
Owner: Zanesville Water Department.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 132 ft (40.2 m), cased.

DATUM.--Land-surface datum is 700 ft (213.360 m) above mean sea level. Measuring point: Floor of instrument shelter 4.48 ft (1.366 m) above land-surface datum.

REMARKS.--Water level affected by nearby municipal wells and by stage of the Muskingum River.

PERIOD OF RECORD.--May 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.25 ft (11.354 m) Aug. 1-2, 1954; minimum daily low, 8.50 ft (2.591 m) May 25, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 36.22 ft (11.040 m) Feb. 25; minimum daily low, 22.44 ft (6.840 m) Apr. 18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.09	27.53	28.35	29.98	33.43	---	28.37	22.89	25.12	25.86	25.65	27.94
2	26.99	27.71	28.39	29.99	33.56	---	28.24	23.15	25.25	25.86	25.68	27.72
3	27.23	27.94	28.58	30.00	33.77	---	28.24	23.22	25.45	25.40	25.92	27.70
4	27.08	28.06	28.82	30.20	33.98	---	27.91	23.32	25.59	25.14	26.17	27.24
5	27.25	28.26	28.91	30.07	34.15	---	27.81	23.04	25.66	25.10	26.32	27.40
6	27.37	28.27	28.93	30.49	34.16	---	27.45	23.30	25.69	25.23	26.31	27.78
7	27.38	28.35	29.06	30.59	34.27	---	27.89	23.07	25.57	25.41	26.30	27.84
8	27.53	28.36	29.09	30.61	34.37	---	27.57	23.45	25.65	25.52	26.19	28.04
9	27.70	28.06	29.11	30.56	34.47	---	26.86	23.38	25.89	25.63	26.36	28.08
10	27.79	28.34	29.16	30.71	34.64	---	26.22	23.23	25.96	25.47	26.62	28.01
11	27.81	28.62	29.22	30.75	34.84	---	25.93	23.13	26.14	25.14	26.69	27.99
12	27.66	28.50	29.27	30.99	35.05	---	25.69	23.32	26.01	25.25	26.69	28.07
13	27.59	28.73	29.30	31.02	35.25	---	25.41	23.18	25.90	25.57	26.41	28.01
14	27.74	28.84	29.15	31.10	35.39	---	24.18	23.16	26.08	25.89	26.24	27.99
15	27.69	28.84	29.20	31.04	35.53	---	22.99	22.83	26.32	25.88	26.33	27.80
16	27.49	28.64	29.26	31.06	35.64	---	22.81	23.44	26.47	25.83	26.40	28.12
17	27.01	28.69	29.40	31.07	35.73	---	22.57	23.75	26.75	25.92	26.37	28.11
18	27.24	28.81	29.52	31.33	35.82	---	22.44	23.55	26.78	25.74	26.33	27.49
19	27.47	28.87	29.51	31.20	35.87	---	22.83	23.30	26.53	26.00	26.45	27.63
20	27.44	28.94	29.40	31.72	35.97	---	22.81	23.70	26.30	26.04	26.51	27.82
21	27.38	28.96	29.43	31.91	36.03	---	22.82	23.74	26.39	26.16	26.61	27.79
22	27.46	28.93	29.26	32.09	36.09	---	23.08	23.64	26.41	26.25	26.47	27.72
23	27.27	28.59	29.49	32.28	36.14	---	23.11	23.79	26.41	26.35	26.68	27.61
24	27.28	28.62	29.36	32.44	36.21	---	22.78	24.15	25.98	26.39	26.79	27.45
25	27.50	28.59	29.37	32.72	36.22	---	22.85	24.19	26.08	25.96	26.73	26.96
26	27.59	28.36	28.85	32.72	36.06	---	23.24	24.51	25.89	26.08	26.89	27.37
27	27.68	28.79	28.87	32.91	---	---	23.40	24.60	25.66	25.91	26.95	27.70
28	27.82	28.76	29.06	33.01	---	---	23.49	24.86	25.81	25.08	26.79	27.81
29	27.75	27.93	29.16	33.10	---	---	23.53	24.89	26.06	25.04	27.02	27.89
30	27.77	28.21	29.63	33.13	---	---	23.53	24.70	26.05	25.93	27.39	27.89
31	27.49	---	29.74	33.21	---	28.23	---	24.76	---	25.84	27.93	---
MAX	27.82	28.96	29.74	33.21	36.22	---	28.37	24.89	26.78	26.39	27.93	28.12

PICKAWAY COUNTY

393325082571100. Local number, PK-21.

LOCATION.--Lat 39°33'25", long 82°57'11", Hydrologic Unit 05060002, 3.0 mi (4.8 km) south of courthouse in Circleville.

Owner: Pittsburgh Plate Glass Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled industrial supply artesian well, diameter 20 in (0.51 m), depth 135 ft (41.1 m), cased below 85 ft (25.9 m).

PERIOD OF RECORD.--June 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT										
19...	730	7.2	<10	7.8	386	0	317	39	52	14
JUN										
28...	724	7.4	4	8.9	406	0	333	26	48	15

DATE	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
OCT									
19...	367	.00	.01	.19	.05	<10	2900	0	40
JUN									
28...	319	.00	.00	.20	.00	20	3000	5	40

393327082571600. Local number, PK-7.

LOCATION.--Lat 39°33'27", long 82°57'16", Hydrologic Unit 05060002, 3.1 mi (5.0 km) south of Circleville. Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 6 in (0.15 m) depth 172 ft (52.4 m), cased to 164 ft (50.0 m).

DATUM.--Land-surface datum is 705 ft (214.884 m) above mean sea level. Measuring point: Floor of instrument shelter, 3.00 ft (0.914 m) above land-surface datum.

PERIOD OF RECORD.--July 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 54.80 ft (16.703 m) Sept. 15, 1977; minimum daily low, 44.65 ft (13.609 m) Aug. 22, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 54.80 ft (16.703 m) Sept. 15; minimum recorded daily low, 50.01 ft (15.243 m) Oct. 4.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.06	---	50.69	51.35	52.34	53.55	53.97	54.16	53.92	54.34	54.60	54.71
2	50.07	---	50.80	51.34	52.38	53.59	53.86	54.11	54.03	53.95	54.72	54.72
3	50.05	---	50.84	51.30	52.33	53.52	54.03	54.16	54.07	53.85	54.75	54.71
4	50.01	---	50.76	51.53	52.36	53.50	53.91	54.12	54.05	53.75	54.73	54.52
5	50.07	---	50.80	51.57	52.57	53.60	54.05	54.05	53.80	53.89	54.72	54.27
6	50.16	---	50.67	51.59	52.63	53.60	54.14	54.10	53.82	54.01	54.72	54.37
7	50.17	---	50.84	51.65	52.72	53.60	54.11	54.11	53.93	53.98	54.64	54.52
8	---	---	51.07	51.65	52.76	53.63	54.13	53.93	53.94	53.99	54.62	54.60
9	---	---	51.08	51.48	52.79	53.67	54.07	53.97	54.11	53.99	54.61	54.63
10	---	---	50.97	51.43	52.82	53.67	53.82	54.07	54.20	53.93	54.62	54.66
11	---	---	50.92	51.68	52.84	53.59	53.92	54.11	54.22	53.95	54.64	54.60
12	---	---	50.73	51.81	52.82	53.39	54.05	54.11	54.03	54.08	54.63	54.54
13	---	---	50.88	51.83	52.81	53.36	54.07	54.09	54.08	54.26	54.62	54.64
14	---	---	50.89	51.73	52.92	53.58	54.10	54.03	54.22	54.32	54.58	54.75
15	---	---	50.87	51.66	53.03	53.70	54.15	53.90	54.28	54.33	54.67	54.80
16	---	---	50.96	51.71	53.02	53.83	54.13	53.98	54.30	54.29	54.69	54.77
17	---	---	50.97	51.80	53.08	53.82	54.07	54.03	54.28	54.18	54.69	54.76
18	---	---	50.98	51.97	53.13	53.82	54.05	54.06	54.21	54.29	54.70	54.63
19	---	---	50.78	51.96	53.14	53.87	54.10	54.11	53.98	54.46	54.71	54.55
20	---	---	50.85	51.96	53.04	53.86	54.16	54.18	54.20	54.54	54.68	54.64
21	---	---	51.07	51.96	53.20	53.86	54.12	54.19	54.44	54.55	54.61	54.66
22	---	---	51.06	51.88	53.31	53.88	54.10	53.88	54.48	54.55	54.55	54.58
23	---	---	51.08	51.88	53.33	53.88	54.01	53.88	54.45	54.57	54.55	54.48
24	---	---	51.03	51.79	53.37	53.89	53.76	54.03	54.36	54.24	54.61	54.44
25	---	---	50.83	51.86	53.53	53.88	53.91	54.10	54.37	54.43	54.64	54.31
26	---	---	50.78	51.84	53.55	53.88	54.11	54.12	54.11	54.63	54.60	54.42
27	---	---	50.83	52.01	53.58	53.59	54.10	54.13	54.06	54.70	54.58	54.55
28	---	---	51.10	52.05	53.58	53.57	54.09	54.07	54.14	54.72	54.53	54.62
29	---	50.55	51.37	52.06	---	53.83	54.18	53.84	54.30	54.71	54.43	54.61
30	---	50.70	51.38	52.07	---	53.89	54.22	53.62	54.33	54.69	54.52	54.62
31	---	---	51.39	52.19	---	53.99	---	53.72	---	54.52	54.62	---
MAX	---	---	51.39	52.19	53.58	53.99	54.22	54.19	54.48	54.72	54.75	54.80

PIKE COUNTY

390359083015100. Local number, PI-2.
LOCATION.--Lat 39°03'59", long 83°01'51", Hydrologic Unit 05060002, 1 mi (1.6 km) west of Piketon.
Owner: Goodyear Atomic Corporation.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (0.15 m), depth 60 ft (18.3 m), cased.
DATUM.--Land-surface datum is 550 ft (167.640 m) above mean sea level. Measuring point: Floor of instrument shelter, 3.00 ft (0.914 m) above land-surface datum.
PERIOD OF RECORD.--September 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 27.46 ft (8.370 m) Feb. 15, 1977; minimum daily low, 11.25 ft (3.429 m) Mar. 1, 1975.
EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 27.46 ft (8.370 m) Feb. 15; minimum daily low, 23.19 ft (7.068 m) Apr. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.21	26.60	26.82		---	---	24.32	24.09	25.00	26.27	26.64	26.93
2	26.22	26.60	26.84		---	---	24.32	24.14	25.07	26.28	26.65	26.95
3	26.25	26.60	26.86		---	---	24.34	24.17	25.14	26.29	26.67	26.96
4	26.26	26.60	26.88		---	---	24.31	24.20	25.19	26.29	26.69	26.97
5	26.28	26.60	26.89		---	---	24.25	24.23	25.24	26.29	26.71	26.98
6	26.30	26.59	26.90		---	---	24.21	24.25	25.30	26.29	26.72	26.98
7	26.31	26.59	26.92		---	---	24.11	24.26	25.35	26.31	26.74	26.99
8	26.33	26.59	26.93		---	---	23.95	24.26	25.41	26.31	26.75	27.03
9	26.34	26.59	26.94		---	---	23.78	24.21	25.47	26.33	26.77	27.04
10	26.35	26.59	26.99		---	---	23.60	24.15	25.52	26.35	26.79	27.05
11	26.35	26.59	26.99		---	---	23.48	24.08	25.57	26.36	26.81	27.06
12	26.35	26.60	27.01		---	---	23.38	24.03	25.61	26.38	26.81	27.07
13	26.35	26.60	---		---	---	23.30	23.98	25.65	26.40	26.81	27.09
14	26.36	26.61	---		---	---	23.23	23.95	25.70	26.41	26.81	27.10
15	26.37	26.62	---		27.46	---	23.20	23.98	25.73	26.42	26.81	27.12
16	26.38	26.63	---		27.45	---	23.19	24.02	25.77	26.43	26.81	27.13
17	26.40	26.64	---		27.40	25.33	23.21	24.07	25.79	26.43	26.81	27.14
18	26.41	26.64	---		27.35	25.19	23.26	24.12	25.83	26.44	26.81	27.14
19	26.43	26.65	---		27.30	25.11	23.32	24.18	25.87	26.45	26.82	27.14
20	26.45	26.66	---		27.24	25.00	23.38	24.23	25.90	26.47	26.82	27.13
21	26.47	26.68	---		27.19	24.93	23.44	24.29	25.95	26.49	26.82	27.13
22	26.49	26.69	---		27.17	24.79	23.49	24.36	25.98	26.50	26.85	27.12
23	26.50	26.71	---		27.16	24.72	23.56	24.42	26.01	26.51	26.86	27.11
24	26.51	26.71	---		27.15	24.61	23.63	24.49	26.04	26.52	26.88	27.10
25	26.53	26.74	---		27.13	24.51	23.66	24.55	26.08	26.53	26.88	27.09
26	26.56	26.75	---		---	24.44	23.75	24.62	26.11	26.55	26.87	27.09
27	26.57	26.76	---		---	24.36	23.82	24.68	26.15	26.56	26.88	27.08
28	26.57	26.78	---		---	24.29	23.91	24.74	26.18	26.58	26.89	27.09
29	26.58	26.80	---		---	24.26	23.98	24.82	26.21	26.59	26.90	27.09
30	26.58	26.81	---		---	24.27	24.04	24.88	26.25	26.61	26.91	27.10
31	26.59	---	---		---	24.30	---	24.94	---	26.62	26.92	---
MAX	26.59	26.81	---		---	---	24.34	24.94	26.25	26.62	26.92	27.14

PORTAGE COUNTY

411101081022000. Local number, PO-3.

LOCATION.--Lat 41°11'01", long 81°02'20", Hydrologic Unit 05030103, at Ravenna Army Ammunition Plant 10.9 mi (17.5 km) east of Ravenna.
Owner: U.S. Army.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (0.30 m), depth 163 ft (49.7 m), cased.

DATUM.--Land-surface datum is 985 ft (300.228 m) above mean sea level. Measuring point: Surface of instrument platform 2.80 ft (0.853 m) above land-surface datum.

REMARKS.--Water level affected by nearby pumping wells.

PERIOD OF RECORD.--May 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 41.35 ft (12.603 m) Jan. 28, Feb. 6, 1954; minimum daily low, 19.34 ft (5.895 m) Mar. 31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 26.95 ft (8.214 m) Feb. 16; minimum daily low, 21.01 ft (6.404 m) May 13.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.67	23.19	25.24		---	25.92	22.76	21.52	21.40	22.20	22.80	22.98
2	22.67	24.21	25.07		---	24.99	23.42	22.74	21.70	22.42	22.84	22.93
3	24.39	22.95	24.16		---	25.98	22.70	21.65	21.88	23.53	24.09	22.96
4	23.48	24.09	25.14		---	25.41	22.82	21.40	21.87	23.83	23.16	22.93
5	23.52	23.14	25.35		---	24.57	22.71	21.08	21.63	22.63	23.02	22.78
6	22.85	22.99	24.12		---	24.54	22.53	21.11	21.44	22.47	22.96	24.19
7	24.01	24.10	24.62		---	25.64	23.35	21.22	21.49	22.37	22.86	23.09
8	22.99	23.10	25.10		---	24.62	22.70	21.18	21.46	22.50	22.83	24.12
9	23.55	23.79	24.35		---	25.60	23.84	21.13	21.74	22.64	22.87	23.14
10	23.04	23.48	25.14		---	24.31	23.62	21.15	21.84	23.88	22.78	23.09
11	24.25	24.11	24.23		---	25.60	23.09	21.21	21.79	22.76	22.86	23.21
12	23.19	24.51	24.78		---	25.19	22.53	21.22	21.75	22.63	22.87	24.41
13	22.82	23.49	24.21		---	25.26	22.29	21.01	23.07	22.77	22.79	23.05
14	23.78	23.30	25.07		26.79	24.25	22.11	21.04	22.04	22.82	22.85	24.45
15	22.76	24.25	23.81		26.81	24.04	22.10	21.96	22.08	22.76	24.25	23.56
16	23.02	24.31	24.50		26.95	23.88	22.04	22.63	22.00	22.77	23.05	24.39
17	24.22	23.37	---		26.79	23.85	23.23	21.38	21.87	23.88	22.85	23.44
18	23.30	24.18	---		25.63	23.29	21.91	21.25	21.77	22.85	22.97	23.23
19	24.22	22.93	---		26.40	23.52	21.88	21.29	21.77	22.77	23.94	24.09
20	22.95	24.06	---		25.33	23.42	21.91	21.29	23.06	22.73	23.08	23.23
21	23.78	22.94	---		26.46	23.42	21.91	21.32	22.17	22.69	22.96	23.36
22	23.12	24.34	---		25.54	23.07	21.81	21.33	22.21	22.86	22.82	23.39
23	23.19	24.45	---		25.10	23.07	21.65	22.71	22.24	22.87	22.85	23.26
24	22.94	24.03	---		25.58	23.15	21.37	21.57	22.12	23.94	23.01	23.09
25	23.88	24.76	---		25.87	23.10	22.49	21.46	21.93	22.76	23.12	24.32
26	24.14	24.73	---		25.01	24.42	21.39	21.39	22.02	22.92	23.01	23.06
27	23.33	24.60	---		25.78	24.14	21.40	21.35	23.36	22.98	23.00	23.08
28	24.40	23.70	---		24.89	23.15	21.52	21.21	22.10	24.19	23.06	23.21
29	23.24	24.79	---		---	22.65	21.67	21.37	22.17	22.90	22.98	23.22
30	23.09	25.07	---		---	22.57	21.64	21.46	22.20	22.80	22.99	23.10
31	23.69	---	---		---	22.70	---	22.77	---	22.73	22.98	---
MAX	24.40	25.07	---		---	25.98	23.84	22.77	23.36	24.19	24.25	24.45

ROSS COUNTY

391922082580000. Local number, RO-3.

LOCATION.--Lat 39°19'22", long 82°58'00", Hydrologic Unit 05060003, 1.1 mi (1.8 km) southeast of courthouse in Chillicothe.
Owner: The Mead Corporation.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 30 in (0.76 m), depth 60 ft (18.3 m), cased.

DATUM.--Land-surface datum is 610 ft (185.928 m) above mean sea level. Measuring point: Floor of instrument shelter 4.71 ft (1.436 m) above land-surface datum.

PERIOD OF RECORD.--January 1941 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 42.92 ft (13.082 m) Dec. 24, 1949; minimum daily low, 17.20 ft (5.243 m) Mar. 21, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 31.04 ft (9.461 m) Feb. 13-17; minimum daily low, 28.00 ft (8.534 m) May 15-16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.65	29.24	29.55	29.75	30.77	30.94	29.60	28.46	28.23	28.78	28.87	29.14
2	28.67	29.26	29.56	29.74	30.80	30.91	29.58	28.44	28.27	28.84	28.87	29.15
3	28.67	29.28	29.58	29.73	30.81	30.88	29.42	28.42	28.31	28.88	28.87	29.12
4	28.67	29.29	29.60	29.72	30.80	30.76	29.42	28.40	28.35	28.93	28.85	29.12
5	28.65	29.31	29.62	29.75	30.82	30.69	29.36	28.35	28.37	28.96	28.84	29.12
6	28.62	29.32	29.64	29.79	30.85	30.69	29.32	28.31	28.39	29.00	28.83	29.09
7	28.58	29.33	29.64	29.82	30.88	30.68	29.30	28.27	28.41	29.04	28.82	29.04
8	28.58	29.34	29.66	29.87	30.92	30.65	29.26	28.23	28.44	29.08	28.82	29.01
9	28.57	29.34	29.70	29.92	30.95	30.63	29.23	28.20	28.45	29.10	28.83	28.99
10	28.56	29.32	29.72	29.97	30.98	30.59	29.19	28.16	28.48	29.04	28.84	28.97
11	28.61	29.30	29.74	30.03	31.00	30.56	29.14	28.11	28.52	29.06	28.85	28.97
12	28.65	29.30	29.77	30.08	31.03	30.52	29.08	28.07	28.55	29.07	28.85	28.97
13	28.69	29.31	29.78	30.12	31.04	30.29	29.03	28.04	28.58	29.07	28.85	28.97
14	28.73	29.32	29.81	30.16	31.04	30.29	28.98	28.01	28.59	29.01	28.86	29.00
15	28.78	29.33	29.84	30.20	31.04	30.29	28.94	28.00	28.62	28.98	28.86	29.03
16	28.82	29.34	29.86	30.20	31.04	30.28	28.90	28.00	28.65	28.95	28.86	29.03
17	28.87	29.35	29.89	30.23	31.04	30.26	28.87	28.01	28.68	28.92	28.87	29.04
18	28.90	29.35	29.90	30.30	31.03	30.21	28.85	28.02	28.70	28.90	28.88	29.05
19	28.93	29.36	29.91	30.32	31.02	30.07	28.82	28.03	28.71	28.90	28.90	29.07
20	28.95	29.37	29.93	30.38	31.01	30.04	28.80	28.03	28.73	28.92	28.91	29.08
21	28.97	29.39	29.95	30.41	31.00	30.00	28.77	28.03	28.75	28.93	28.93	29.10
22	29.01	29.40	29.99	30.45	31.00	29.93	28.74	28.03	28.75	28.86	28.95	29.12
23	29.04	29.42	30.00	30.49	30.99	29.87	28.70	28.04	28.76	28.87	28.97	29.14
24	29.05	29.44	30.00	30.53	30.99	29.83	28.67	28.06	28.77	28.87	28.97	29.15
25	29.08	29.46	30.00	30.57	30.99	29.79	28.63	28.07	28.77	28.88	29.00	29.16
26	29.12	29.47	29.96	30.59	30.98	29.76	28.58	28.08	28.79	28.90	29.03	29.17
27	29.15	29.48	29.91	30.61	30.98	29.74	28.56	28.09	28.81	28.93	29.05	29.18
28	29.17	29.50	29.85	30.64	30.96	29.70	28.53	28.11	28.78	28.95	29.08	29.20
29	29.20	29.51	29.80	30.66	---	29.66	28.49	28.13	28.81	28.96	29.10	29.21
30	29.21	29.52	29.77	30.70	---	29.63	28.47	28.17	28.84	28.97	29.11	29.23
31	29.20	---	29.76	30.73	---	29.61	---	28.21	---	28.99	29.13	---
MAX	29.21	29.52	30.00	30.73	31.04	30.94	29.60	28.46	28.84	29.10	29.13	29.23

SCIOTO COUNTY

384451082561900. Local number, SC-1.

LOCATION.--Lat 38°44'51", long 82°56'19", Hydrologic Unit 05090103, at the Detroit Steel Corporation plant in New Boston.

Owner: Detroit Steel Corporation.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 26 in (0.66 m), depth 80 ft (24.4 m), cased.

DATUM.--Land-surface datum is 525 ft (160.020 m) above mean sea level. Measuring point: Surface of instrument platform 6.00 ft (1.829 m) below land-surface datum.

REMARKS.--Water level affected by Ohio River stage.

PERIOD OF RECORD.--May 1955 to November 1961; October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 58.81 ft (17.93 m) Nov. 19, 1957; minimum daily low, 28.45 ft (8.672 m) May 13, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 50.52 ft (15.398 m) Oct. 1; minimum daily low, 30.84 ft (9.400 m) Apr. 11.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.52	46.81	47.92	46.46	49.39	45.99	39.10	43.49	47.62	49.75	49.82	49.11
2	50.49	46.66	48.08	46.51	48.49	45.24	39.50	43.62	47.79	49.75	49.84	49.17
3	50.43	46.45	48.10	46.47	48.30	44.46	39.82	43.75	47.93	49.76	49.88	49.24
4	50.35	46.27	48.14	46.48	48.17	43.73	39.64	43.90	48.03	49.79	49.92	49.30
5	50.27	46.13	48.21	46.34	48.43	43.29	39.05	44.06	48.11	49.83	49.96	49.36
6	50.27	46.04	48.18	45.68	48.46	42.73	38.14	44.18	48.28	49.88	49.99	49.43
7	50.28	46.05	47.91	45.64	48.48	42.03	36.53	44.22	48.36	49.92	50.04	49.47
8	50.27	46.10	47.91	45.62	48.96	41.40	34.49	44.20	48.44	49.95	50.04	49.52
9	50.23	46.14	47.08	45.53	49.54	40.84	32.46	43.99	48.59	49.96	50.01	49.58
10	50.19	46.16	47.71	45.45	49.57	40.50	30.96	43.72	48.64	49.97	49.97	49.65
11	49.93	46.29	47.42	45.57	49.58	40.47	30.84	43.54	48.71	50.00	49.94	49.69
12	49.43	46.55	47.07	45.57	49.54	40.52	31.30	43.61	48.80	50.04	49.87	49.71
13	48.81	46.65	46.82	45.52	49.43	40.63	31.79	43.79	48.87	50.07	49.82	49.78
14	48.27	46.76	46.72	45.66	49.35	40.58	32.51	43.99	48.96	50.08	49.78	49.86
15	47.82	46.90	46.42	46.12	49.11	40.05	33.27	44.23	49.04	50.07	49.73	49.92
16	47.57	47.00	46.06	46.31	49.02	39.33	34.15	44.48	49.13	50.02	49.55	49.93
17	47.36	47.08	45.86	46.33	48.82	38.53	35.19	44.73	49.20	49.97	49.29	49.93
18	47.26	47.23	45.80	46.14	48.63	37.89	36.34	44.96	49.26	50.02	49.09	49.95
19	47.15	47.38	45.71	45.99	48.51	37.87	37.55	45.20	49.29	50.08	48.93	49.96
20	47.20	47.48	45.58	48.08	48.41	37.50	38.64	45.42	49.36	50.11	48.78	49.97
21	47.25	47.61	46.17	48.50	48.37	37.27	39.65	45.64	49.42	50.12	48.66	49.95
22	47.36	47.73	46.21	48.58	48.28	36.94	40.41	45.87	49.48	50.10	48.65	49.89
23	47.39	47.85	46.26	48.56	48.27	36.97	41.01	46.08	49.54	50.03	48.68	49.82
24	47.42	47.94	46.30	48.59	48.16	37.00	41.54	46.27	49.60	49.92	48.79	49.74
25	47.51	47.70	46.18	48.49	48.10	36.97	41.99	46.44	49.65	49.85	48.81	49.73
26	47.56	47.59	46.09	48.31	47.87	36.96	42.36	46.62	49.69	49.84	48.77	49.74
27	47.56	47.66	46.16	48.30	47.36	37.03	42.64	46.78	49.68	49.77	48.80	49.70
28	47.44	47.72	45.93	48.36	46.79	37.38	42.99	46.95	49.70	49.69	48.84	49.69
29	47.23	47.79	46.00	48.35	---	37.89	43.22	47.14	49.73	49.66	48.91	49.64
30	47.03	47.88	46.09	49.35	---	38.33	43.38	47.32	49.74	49.69	48.97	49.60
31	46.87	---	46.38	49.36	---	38.88	---	47.45	---	49.74	49.04	---
MAX	50.52	47.94	48.21	49.36	49.58	45.99	43.38	47.45	49.74	50.12	50.04	49.97

STARK COUNTY

405052081193700. Local number, ST-4.

LOCATION.--Lat 40°50'52", long 81°19'37", Hydrologic Unit 05040001, northeast of Canton on Harmont Avenue. Owner: Adessi Brothers.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 4 in (0.10 m), depth 73 ft (22.3 m), cased.

DATUM.--Land-surface datum is 1,075 ft (327.660 m) above mean sea level. Measuring point: Top of casing 4.00 ft (1.219 m) above land-surface datum.

REMARKS.--Prior to water year 1976 well depth reported as 190 ft (57.9 m).

PERIOD OF RECORD.--April 1941 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 22.02 ft (6.712 m) Jan. 28-Feb. 25, 1956; minimum daily low, 6.93 ft (2.112 m) Feb. 6, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 14.56 ft (4.438 m) Feb. 12; minimum recorded daily low, 11.66 ft (3.554 m) Apr. 27.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.39	12.93	13.44		---	13.77	---	11.72	12.44	13.16	13.22	13.27
2	12.41	12.94	13.46		---	13.67	---	11.73	12.47	13.17	13.23	13.29
3	12.42	12.95	13.47		---	13.60	---	11.74	12.52	13.18	13.24	13.30
4	12.44	12.96	13.50		---	13.56	---	11.74	12.55	13.20	13.26	13.30
5	12.45	12.97	13.52		---	13.54	---	11.75	12.58	13.20	13.28	13.29
6	12.47	12.98	13.54		---	13.46	---	11.75	12.60	13.19	13.31	13.28
7	12.49	12.99	13.55		---	13.44	---	11.76	12.62	13.17	13.31	13.27
8	12.51	13.01	13.56		---	13.42	---	11.77	12.64	13.17	13.29	13.27
9	12.53	13.03	13.57		---	13.41	---	11.79	12.66	13.15	13.24	13.27
10	12.55	13.05	13.59		14.55	13.39	---	11.81	12.68	13.13	13.21	13.28
11	12.56	13.07	13.60		14.55	13.39	---	11.83	12.69	13.10	13.17	13.29
12	12.58	13.08	13.61		14.56	13.39	---	11.85	12.71	13.08	13.15	13.31
13	12.60	13.10	13.63		14.55	13.39	---	11.88	12.79	13.08	13.14	13.32
14	12.62	13.13	13.64		14.55	13.38	---	11.92	12.82	13.08	13.13	13.33
15	12.65	13.14	---		14.55	13.33	---	11.95	12.83	13.10	13.13	13.34
16	12.67	13.15	---		14.55	13.28	---	11.97	12.85	13.13	13.13	13.35
17	12.69	13.16	---		14.55	13.25	---	11.99	12.88	13.14	13.14	13.35
18	12.71	13.18	---		14.54	13.22	---	12.03	12.89	13.15	13.14	13.34
19	12.73	13.20	---		14.53	13.17	---	12.05	12.91	13.15	13.15	13.31
20	12.75	13.21	---		14.52	13.08	---	12.08	12.93	13.16	13.16	13.29
21	12.77	13.24	---		14.52	13.00	---	12.11	12.96	13.17	13.16	13.27
22	12.79	13.26	---		14.51	12.93	11.68	12.14	12.98	13.17	13.16	13.25
23	12.82	13.28	---		14.51	12.85	11.69	12.17	13.00	13.17	13.17	13.24
24	12.84	13.30	---		14.49	12.78	11.69	12.20	13.02	13.16	13.17	13.24
25	12.85	13.32	---		14.42	12.75	11.69	12.23	13.04	13.15	13.19	13.24
26	12.86	13.34	---		14.26	12.74	11.67	12.25	13.06	13.15	13.20	13.23
27	12.88	13.35	---		14.10	12.73	11.66	12.29	13.08	13.15	13.22	13.20
28	12.89	13.36	---		13.93	12.73	11.67	12.33	13.10	13.16	13.23	13.17
29	12.90	13.38	---		---	---	11.69	12.35	13.13	13.18	13.24	13.16
30	12.92	13.40	---		---	---	11.70	12.38	13.15	13.19	13.25	13.16
31	12.93	---	---		---	---	---	12.41	---	13.20	13.26	---
MAX	12.93	13.40	---		---	13.77	---	12.41	13.15	13.20	13.31	13.35

TUSCARAWAS COUNTY

403207081293800. Local number, TU-3.
LOCATION.--Lat 40°32'07", long 81°29'38", Hydrologic Unit 05040001, in the northwest part of Dover.
Owner: Dover City Water Department.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 62 ft (18.9 m), cased.
DATUM.--Land-surface datum is 880 ft (268.224 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m) above land-surface datum.
PERIOD OF RECORD.--May 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 19.35 ft (5.898 m) Nov. 29-30, Dec. 6-8, 1962; minimum daily low, 3.20 ft (0.975 m) July 15, 1969.
EXTREMES FOR CURRENT YEAR.--Maximum daily low, 11.31 ft (3.447 m) Feb. 11; minimum daily low, 6.83 ft (2.082 m) Apr. 10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.64	9.86	10.21	10.59	11.12	8.83	8.64	8.19	9.68	9.62	8.77	9.47
2	9.63	9.67	10.22	10.61	11.12	8.76	8.54	8.20	9.72	9.51	8.78	9.48
3	9.31	9.67	10.24	10.56	11.22	8.92	8.07	8.24	9.79	9.33	8.88	9.45
4	9.73	9.73	10.26	10.66	11.22	9.07	7.38	8.23	9.81	9.08	8.95	9.11
5	9.85	9.73	10.22	10.65	11.22	9.12	7.26	8.25	9.82	8.90	9.01	9.35
6	9.85	9.76	10.31	10.63	11.23	8.97	7.40	8.25	9.53	8.51	8.95	9.44
7	9.89	9.79	10.24	10.74	11.23	9.26	7.33	8.25	9.45	8.57	8.80	9.50
8	9.90	9.84	10.31	10.68	11.23	9.31	7.35	8.22	9.45	8.62	8.78	9.52
9	9.92	9.86	10.23	10.70	11.23	9.39	7.01	8.33	9.40	8.71	8.51	9.57
10	9.88	10.04	10.18	10.74	11.30	9.46	6.83	8.41	9.32	8.62	8.71	9.59
11	9.94	10.07	10.20	10.75	11.31	9.49	6.87	8.48	9.30	8.72	8.73	9.22
12	9.88	10.11	10.20	10.77	11.29	9.47	7.15	8.56	9.21	8.74	8.77	9.52
13	9.89	9.99	10.39	10.76	11.25	9.40	7.30	8.56	9.17	8.86	8.76	9.62
14	9.95	9.83	10.26	10.83	11.21	8.98	7.46	8.64	9.47	8.93	8.85	9.21
15	9.79	9.94	10.28	11.02	11.13	8.66	7.51	8.72	9.54	9.01	8.92	9.37
16	9.94	10.14	10.31	11.06	10.99	8.75	7.60	8.76	9.62	9.07	8.96	9.28
17	9.93	10.12	10.35	11.07	10.83	8.86	7.65	8.86	9.64	9.10	8.96	9.22
18	9.97	9.99	10.38	11.08	10.84	8.83	7.73	8.96	9.42	9.23	9.01	8.87
19	9.93	10.10	10.31	11.07	10.84	8.64	7.76	9.04	9.23	9.34	9.02	9.09
20	9.80	10.14	10.42	11.10	10.87	8.17	7.90	9.07	9.43	9.51	9.03	9.01
21	9.99	10.00	10.43	11.14	10.90	8.20	7.98	9.13	9.47	9.59	8.93	8.99
22	9.99	10.08	10.41	11.17	10.92	8.35	8.02	9.21	9.51	8.59	9.11	9.03
23	9.77	10.26	10.42	11.12	10.93	8.35	8.03	9.30	9.56	8.50	9.12	9.04
24	9.90	10.12	10.41	11.16	10.58	8.39	7.94	9.31	9.55	8.36	9.20	9.00
25	9.89	10.05	10.33	10.92	10.36	8.44	8.02	9.29	9.42	8.45	9.20	9.07
26	9.98	10.11	10.47	11.12	9.46	8.49	8.04	9.38	9.09	8.53	9.21	9.08
27	9.78	10.13	10.53	11.12	9.10	8.49	8.07	9.48	9.49	8.63	9.24	9.08
28	9.96	10.09	10.59	11.12	8.83	8.52	8.16	9.49	9.53	8.68	9.10	9.17
29	9.77	10.18	10.63	11.12	---	8.58	8.11	9.65	9.62	8.76	9.33	9.15
30	9.85	10.20	10.55	11.12	---	8.55	8.15	9.71	9.67	8.70	9.39	9.23
31	9.91	---	10.55	11.11	---	8.63	---	9.68	---	8.65	9.43	---
MAX	9.99	10.26	10.63	11.17	11.31	9.49	8.64	9.71	9.82	9.62	9.43	9.62

403210081293100. Local number, TU-10.

LOCATION.--Lat 40°32'10", long 81°29'31", Hydrologic Unit 05040001, 1.8 mi (2.9 km) northwest of fairgrounds in Dover.

Owner: City of Dover.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 20 in (0.51 m), depth 103 ft (31.4 m), screened below 85 ft (25.9 m).

PERIOD OF RECORD.--June 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV										
04...	560	7.5	<10	3.6	202	0	166	10	93	6.8
APR										
05...	559	7.3	5	4.1	206	0	170	17	110	6.9

DATE	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV									
04...	356	.33	.01	.04	.03	<10	230	0	300
APR									
05...	369	.30	.00	.04	.00	10	300	3	500

UNION COUNTY

401826083255200. Local number, U-4.

LOCATION.--Lat 40°18'26", long 83°25'52", Hydrologic Unit 05060001, 2.6 mi (4.2 km) southeast of Raymond. Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age .

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in (0.3 m), depth 350 ft (106.7 m), cased to 37 ft (11.3 m).

DATUM.--Land-surface datum is 1,040 ft (316.992 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m) above land-surface datum.

PERIOD OF RECORD.--January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.34 ft (7.419 m) Sept. 11, 1977; minimum daily low, 19.32 ft (5.889 m) Feb. 24, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 24.34 ft (7.419 m) Sept. 11; minimum daily low, 21.44 ft (6.535 m) Apr. 3.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.46	23.51	23.71	---	24.21	23.33	22.62	22.52	22.84	23.05	23.53	24.12
2	23.49	23.47	23.82	---	24.19	23.35	22.46	22.54	22.95	23.15	23.58	24.13
3	23.58	23.40	23.79	23.90	24.03	23.29	21.44	22.56	23.04	23.15	23.60	24.14
4	23.60	23.45	23.83	23.93	23.96	23.07	21.45	22.38	23.07	23.15	23.63	24.12
5	23.54	23.48	23.84	23.92	24.17	22.96	21.57	21.92	23.02	23.16	23.67	24.12
6	23.58	23.47	23.74	---	24.22	22.98	21.84	21.97	22.97	23.15	23.69	24.18
7	23.59	23.53	23.70	---	24.24	23.05	21.84	22.07	23.01	23.18	23.66	24.21
8	23.59	23.53	23.83	---	24.21	23.05	22.03	22.08	22.99	23.17	23.70	24.21
9	23.48	23.45	23.85	---	24.09	23.06	22.06	22.16	22.63	23.25	23.69	24.20
10	23.56	23.47	23.81	---	24.12	23.09	22.04	22.19	22.62	23.26	23.70	24.29
11	23.57	23.56	23.85	---	24.09	23.18	22.18	22.29	22.61	23.23	23.75	24.34
12	23.61	23.64	23.74	---	24.00	23.05	22.23	22.31	22.62	23.24	23.74	24.31
13	23.48	23.66	23.88	---	23.69	22.69	22.20	22.28	22.69	23.33	23.74	24.20
14	23.53	23.58	23.83	---	23.75	22.75	22.29	22.34	22.74	23.37	23.76	24.32
15	23.52	23.55	23.76	---	23.78	22.76	22.34	22.49	22.77	23.41	23.80	24.26
16	23.62	23.64	23.71	---	23.76	22.88	22.40	22.51	22.75	23.40	23.77	24.23
17	23.66	23.59	23.82	---	23.73	22.89	22.42	22.50	22.73	23.35	23.78	24.20
18	23.72	23.51	23.84	23.95	23.66	22.56	22.45	22.51	22.71	23.33	23.82	24.15
19	23.60	23.57	23.77	23.95	23.71	22.52	22.49	22.58	22.77	23.28	23.81	24.10
20	23.56	23.56	23.77	24.02	23.70	22.58	22.54	22.58	22.85	23.35	23.84	24.27
21	23.56	23.59	23.93	24.05	23.74	22.59	22.57	22.65	22.93	23.32	23.88	24.30
22	23.66	23.71	23.89	24.14	23.63	22.45	22.59	22.67	22.94	23.34	23.84	24.26
23	23.66	23.71	23.90	24.12	23.59	22.43	22.49	22.75	22.96	23.30	23.86	24.21
24	23.55	23.67	---	23.97	23.16	22.52	22.46	22.74	22.92	23.31	23.94	24.18
25	23.43	23.65	---	23.91	23.11	22.59	22.41	22.71	22.90	23.36	24.00	24.23
26	23.53	23.55	---	23.90	23.17	22.62	22.46	22.73	22.94	23.46	23.99	24.23
27	23.59	23.65	---	23.93	23.17	22.56	22.46	22.73	22.99	23.51	24.03	24.27
28	23.66	23.65	---	24.02	23.20	22.39	22.55	22.72	22.96	23.48	24.06	24.33
29	23.54	23.74	---	24.03	---	22.42	22.58	22.82	23.01	23.46	24.06	24.28
30	23.50	23.75	---	24.09	---	22.42	22.59	22.89	23.01	23.48	24.08	24.26
31	23.49	---	---	24.06	---	22.62	---	22.86	---	23.45	24.07	---
MAX	23.72	23.75	---	---	24.24	23.35	22.62	22.89	23.07	23.51	24.08	24.34

WARREN COUNTY

392511084182500. Local number, W-14.

LOCATION.--Lat 39°25'11", long 84°18'31", Hydrologic Unit 05090202, 3.3 mi (5.3 km) east of Monroe.
Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (0.15 m), depth drilled 81 ft (24.7 m), present depth 73 ft (22.3 m), cased to 75 ft (22.9 m).

DATUM.--Land-surface datum is 660 ft (201.168 m) above mean sea level. Measuring point: Floor of instrument shelter 3.00 ft (0.914 m), above land-surface datum.

PERIOD OF RECORD.--July 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 16.48 ft (5.023 m) Sept. 29, 1977; minimum daily low, 6.43 ft (1.960 m) Feb. 19-20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily low, 16.48 ft (5.023 m) Sept. 29; minimum daily low, 11.31 ft (3.447 m) Apr. 10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.86	12.86	---	13.57	14.08	12.35	11.70	12.31	14.39	14.14	15.54	15.98
2	12.85	12.83	---	13.58	14.08	12.35	11.64	12.35	14.43	14.13	15.54	16.01
3	12.90	12.84	---	13.53	13.98	12.12	11.61	12.39	14.50	13.98	15.62	16.02
4	12.93	12.85	---	13.55	14.01	11.81	11.38	12.38	14.55	14.08	15.67	16.01
5	12.89	12.84	---	13.60	14.13	11.51	11.32	12.38	14.57	14.30	15.71	16.02
6	12.90	---	---	13.59	14.13	11.48	11.38	12.40	14.58	14.37	15.74	16.08
7	12.96	---	---	13.62	14.11	11.58	11.33	12.48	14.58	14.51	15.75	16.07
8	12.94	---	---	13.62	14.09	11.57	11.37	12.49	14.59	14.58	15.72	16.15
9	12.93	---	---	13.59	14.09	11.66	11.34	12.53	14.61	14.64	15.72	16.15
10	12.93	---	---	13.68	14.13	11.68	11.31	12.60	14.59	14.62	15.76	16.22
11	13.00	---	---	13.66	14.15	11.71	11.48	12.78	14.53	14.61	15.76	16.22
12	12.99	---	---	13.73	14.12	11.67	11.50	12.81	14.55	14.68	15.76	16.20
13	12.98	---	---	13.72	14.02	11.34	11.64	12.88	14.61	14.78	15.72	16.17
14	12.98	---	---	13.72	14.00	11.42	11.77	13.03	14.64	14.88	15.68	16.27
15	13.01	---	---	13.74	14.00	11.51	11.82	13.13	14.65	14.94	15.68	16.26
16	13.02	---	---	13.73	13.92	11.61	11.97	13.23	14.67	14.94	15.68	16.25
17	12.99	---	---	13.74	13.87	11.46	12.01	13.33	14.77	14.99	15.77	16.26
18	13.02	---	---	13.79	13.81	11.46	12.10	13.45	14.79	15.09	15.80	16.23
19	13.00	---	---	13.81	13.80	11.42	12.13	13.55	14.79	15.14	15.81	16.27
20	13.02	---	---	13.87	13.79	11.42	12.20	13.72	14.81	15.18	15.80	16.29
21	13.02	---	---	13.90	13.76	11.37	12.24	13.81	14.89	15.19	15.71	16.31
22	13.05	---	---	13.91	13.75	11.46	12.24	13.83	14.87	15.27	15.77	16.31
23	13.04	---	13.50	13.89	13.73	11.48	12.25	13.88	14.86	15.29	15.79	16.32
24	12.95	---	13.42	13.80	13.23	11.51	12.19	13.92	14.87	15.30	15.83	16.32
25	12.94	---	13.33	13.88	12.56	11.52	12.25	13.94	14.87	15.37	15.84	16.33
26	13.01	---	13.28	13.84	12.29	11.53	12.29	14.05	14.72	15.40	15.85	16.38
27	13.00	---	13.24	13.88	12.33	11.48	12.31	14.11	14.16	15.41	15.86	16.44
28	12.97	---	13.38	13.95	12.33	11.33	12.38	14.23	14.09	15.46	15.86	16.47
29	12.92	---	13.51	13.98	---	11.49	12.36	14.23	14.12	15.47	15.87	16.48
30	12.87	---	13.53	13.99	---	11.59	12.32	14.28	14.08	15.48	15.91	16.45
31	12.87	---	13.51	14.02	---	11.73	---	14.34	---	15.48	15.93	---
MAX	13.05	---	---	14.02	14.15	12.35	12.38	14.34	14.89	15.48	15.93	16.48

WASHINGTON COUNTY

392458081271100. Local number, WA-1.

LOCATION.--Lat 39°24'58", long 81°27'11", Hydrologic Unit 05040004, at Third and Putnam Streets, Marietta. Owner: Marietta Osteopathic Clinic.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 42 ft (12.8 m), cased.

DATUM.--Land-surface datum is 610 ft (185.9 m) above mean sea level. Measuring point: Floor of instrument shelter 4.80 ft (1.463 m) above land-surface datum.

PERIOD OF RECORD.--May 1942 to June 1974, May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 30.70 ft (9.357 m) Sept. 9, 1962; minimum daily low, 18.83 ft (5.739 m) Mar. 25, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily low, 27.46 ft (8.370 m) Sept. 14; minimum recorded daily low, 26.24 ft (7.998 m) Nov. 3.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.36	26.42	26.91	27.16				---	---	27.17	27.17	27.32
2	27.33	26.32	26.96	27.16				---	---	27.15	27.18	27.36
3	27.32	26.24	26.96	27.19				---	---	27.19	27.23	27.29
4	27.33	26.32	27.01	27.22				---	---	27.25	27.24	27.34
5	27.33	26.36	27.03	27.23				---	---	27.19	27.26	27.38
6	27.32	26.38	27.02	27.22				---	---	27.16	27.28	27.37
7	27.33	26.44	27.00	---				---	---	27.16	27.29	27.38
8	27.32	26.47	26.88	---				---	---	27.15	27.26	27.42
9	27.25	26.43	26.76	---				---	---	27.18	27.20	27.42
10	27.11	26.46	26.72	---				---	---	27.19	27.16	27.38
11	26.77	26.50	26.75	---				---	---	27.21	27.13	27.40
12	26.61	26.57	26.75	---				---	---	27.25	27.15	27.40
13	26.66	26.60	26.79	---				---	---	27.26	27.12	27.42
14	26.64	26.60	26.77	---				---	---	27.19	27.08	27.46
15	26.69	26.65	26.77	---				---	---	27.12	27.03	27.44
16	26.69	26.69	26.78	---				---	---	27.15	26.97	27.35
17	26.70	26.69	26.8[illegible]	---				---	---	27.21	26.95	[illegible]
18	26.74	26.73	26.82	---				---	---	27.25	26.91	27.33
19	26.75	26.75	26.83	---				---	---	27.23	26.89	27.30
20	26.80	26.77	26.89	---				---	---	27.21	26.98	27.28
21	26.80	26.82	26.96	---				---	---	27.18	27.00	27.24
22	26.84	26.83	26.94	---				---	---	27.11	27.08	27.15
23	26.83	26.85	27.01	---				---	26.99	27.03	27.13	27.11
24	26.80	26.84	27.00	---				---	27.03	26.98	27.09	27.11
25	26.78	26.85	27.02	---				---	27.04	26.99	27.09	27.10
26	26.75	26.84	27.05	---				26.29	27.02	26.95	27.15	27.08
27	26.65	26.88	27.05	---				26.35	27.07	26.94	27.20	27.03
28	26.55	26.88	27.07	---				26.36	27.07	26.98	27.21	27.01
29	26.53	26.91	27.11	---				26.37	27.12	27.05	27.24	26.96
30	26.50	26.91	27.13	---				26.37	27.18	27.09	27.27	26.96
31	26.49	---	27.16	---				---	---	27.14	27.29	---
MAX	27.36	26.91	27.16	---				---	---	27.26	27.29	27.46

WASHINGTON COUNTY--Continued

392556081281500. Local number WA-10.
LOCATION.--Lat 39°25'56", long 81°28'15", Hydrologic Unit 05040004, on left bank of Muskingum River 0.2 mi (0.3 km) north of fairgrounds in Marietta.
Owner: City of Marietta.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 17 in (0.43 m), depth 56 ft (17.1 m), screened below 34 ft (10.4 m).
PERIOD OF RECORD.--June 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAY										
19...	720	7.3	9	38	174	0	140	14	110	65

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
MAY									
19...	436	.05	.01	.03	.00	30	1300	2	680

The following table contains water level measurements and chemical analyses from observation wells located in five small watersheds associated with different coal seams. The data will be used to document ground-water flow and water quality during pre- and post- mining conditions.

COSHOCTON COUNTY

400944081444700. Local number, CO6 W10-3.

LCCATION.--Lat 40°09'44", long 81°44'47", Hydrologic Unit 05040005, near Plainfield.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 62 ft (18.9 m), cased to 19 ft (5.8 m), open end.

DATUM.--Land-surface datum is 820.47 ft (250.079 m) (revised) above mean sea level. Measuring point: Top of casing, 2.0 ft (0.61 m) (revised) above land-surface datum.

PERIOD OF RECORD.--July to September 1977 (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.47 ft (5.020 m) below land-surface datum, Aug. 17, 1977 (revised); lowest, 17.54 ft (5.346 m) below land-surface datum, Sept. 15, 1977 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	16.83	16.95	16.96
15	---	---	---	---	---	---	---	---	---	16.77	16.83	17.10
20	---	---	---	---	---	---	---	---	---	---	16.81	17.54
25	---	---	---	---	---	---	---	---	---	---	16.56	17.26
EOM	---	---	---	---	---	---	---	---	17.17	---	16.86	17.23
											16.90	17.22
MAX	---	---	---	---	---	---	---	---	---	17.22	16.96	17.54

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT												
15...	1030	295	7.1	12.5	1	.0	120	16	25	15	3.3	5
MAR												
16...	1000	250	7.0	12.5	0	.2	120	13	25	15	5.2	8
JUN												
17...	0945	245	7.1	13.0	13	.0	120	3	26	13	3.8	6
SEP												
15...	0945	250	7.0	13.0	10	.0	120	6	27	13	4.1	7

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
OCT												
15...	.1	.4	132	0	108	17	18	1.2	.3	.07	.02	.06
MAR												
16...	.2	.7	136	0	112	22	20	1.3	.2	.02	.00	.00
JUN												
17...	.2	.7	141	0	116	18	17	1.8	.2	.08	.01	.03
SEP												
15...	.2	.8	140	0	115	22	17	1.1	.2	.10	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT											
15...	50	0	0	100	2	<10	0	2100	50	3	140
MAR											
16...	30	0	0	100	0	10	2	5200	60	6	80
JUN											
17...	40	0	1	0	0	<10	5	18000	40	10	150
SEP											
15...	2900	0	0	100	0	<10	5	14000	20	13	60

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT											
15...	120	20	<.5	2	0	0	50	20	.1	.00	0
MAR											
16...	70	10	.0	6	0	0	80	50	8.1	.00	7
JUN											
17...	130	20	.0	6	0	0	80	40	6.3	.00	6
SEP											
15...	50	10	.5	6	0	0	60	60	11	.00	2

COSHOCTON COUNTY--Continued

400951081450200. Local number, CO6 W1-1.

LOCATION.--Lat 40°09'51", long 81°45'02", Hydrologic Unit 05040005, near Plainfield.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Observation water well, diameter 6 in (0.15 m), depth 132 ft (40.2 m), cased to 22 ft (6.7 m), open end.

DATUM.--Land surface datum is 1051.46 ft (320.485 m) above mean sea level. Measuring point: Top of casing, 2.2 ft (0.67 m) above land-surface datum.

REMARKS.--Well destroyed by strip-mining operation.

PERIOD OF RECORD.--June to October 1976 (discontinued) (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 83.36 ft (25.408 m) below land-surface datum, Aug. 8, 1976 (revised); lowest, 90.24 ft (27.505 m) below land-surface datum, Oct. 13, 1976 (revised).

REVISIONS.--Revised water-level data for the water year 1976, superceding those published in the report for 1976, are given herein.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	84.12	83.91	83.60	85.07
10	---	---	---	---	---	---	---	---	84.17	83.94	83.42	---
15	---	---	---	---	---	---	---	---	84.05	84.02	83.72	85.00
20	---	---	---	---	---	---	---	---	84.08	83.62	83.85	---
25	---	---	---	---	---	---	---	---	84.25	83.93	84.17	---
EOM	---	---	---	---	---	---	---	---	84.32	83.45	84.45	87.04
MAX	---	---	---	---	---	---	---	---	84.32	84.31	84.45	87.04

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	88.01	---	---	---	---	---	---	---	---	---	---	---
10	89.79	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
EOM	---	---	---	---	---	---	---	---	---	---	---	---
MAX	90.24	---	---	---	---	---	---	---	---	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT 13...	1445	345	7.2	12.0	1	.0	140	10	31	14	7.3	10

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
OCT 13...	.3	1.6	152	0	125	15	27	2.0	.2	.07	.07	.21

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT 13...	200	0	3	300	10	<10	0	3100	20	4	210

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT 13...	150	60	<.5	5	0	0	180	90	1.5	.00	6

COSHOCTON COUNTY--Continued

400951081450201. Local number, CO6 W2-2.

LOCATION.--Lat 40°09'51", long 81°45'02", Hydrologic Unit 05040005, near Plainfield.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 246 ft (75.0 m) cased to 140 ft (42.7 m), open end.

DATUM.--Land-surface datum is 1051.59 ft (320.525 m) above mean sea level. Measuring point: Top of casing, 2.4 ft (0.73 m) above land-surface datum.

REMARKS.--Well destroyed by strip-mining operation.

PERIOD OF RECORD.--June to October 1976 (discontinued) (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 185.16 ft (56.437 m) below land-surface datum, July 12, 1976 (revised); lowest, 186.33 ft (56.793 m) below land-surface datum, Oct. 11, 1976 (revised).

REVISIONS.--Revised water-level data for the water year 1976, superceding those published in the report for 1976, are given herein.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	185.53	185.67	185.41	185.53
10	---	---	---	---	---	---	---	---	185.84	185.36	185.56	185.48
15	---	---	---	---	---	---	---	---	185.86	185.24	185.47	185.68
20	---	---	---	---	---	---	---	---	185.78	185.48	185.60	185.54
25	---	---	---	---	---	---	---	---	185.84	185.45	185.51	185.80
EOM	---	---	---	---	---	---	---	---	185.95	185.31	185.61	185.78
MAX	---	---	---	---	---	---	---	---	185.95	185.88	185.68	185.92

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	186.17	---	---	---	---	---	---	---	---	---	---	---
10	186.22	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
EOM	---	---	---	---	---	---	---	---	---	---	---	---
MAX	186.33	---	---	---	---	---	---	---	---	---	---	---

COSHOCTON COUNTY--Continued

400952081445700. Local number, CO6 W4-2.

LOCATION.--Lat 40°09'52", long 81°44'57", Hydrologic Unit 05040005, near Plainfield.

AQUIFER.--Shales and sands of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 100 ft (30.48 m), cased to 20.3 ft (6.2 m), open end. After Oct. 22, 1976, slotted casing to bottom of well.

DATUM.--Land-surface datum is 914.28 ft (278.672 m) above mean sea level. Measuring point: Top of casing, 0.67 ft (0.20 m) above land-surface datum. Prior to Oct. 22, 1976, top of casing 1.4 ft (0.43 m) above land surface datum.

REMARKS.--Well redrilled Oct. 22, 1976. Well destroyed by strip-mining operation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HYDRO-GEN SULFIDE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT												
14...	1230	500	7.2	11.0	1	.0	140	0	31	14	21	25

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)
OCT												
14...	.8	2.2	188	0	154	19	27	6.0	.3	.04	.10	.31

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
OCT											
14...	1200	0	2	300	1	<10	0	27000	700	5	840

DATE	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRON-TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT											
14...	130	710	<.5	8	0	0	440	50	4.1	.00	0

COSHOCTON COUNTY--Continued

400952081445900. Local number, CO6 W3-1.
LOCATION.--Lat 40°09'52", long 81°44'59", Hydrologic Unit 05040005, near Plainfield.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 29 ft (8.8 m), cased to 20 ft (6.1 m), open end.
DATUM.--Land-surface datum is 945.54 ft (288.201 m) above mean sea level. Measuring point: Top of casing 1.45 ft (0.442 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT 14...	1330	480	7.0	12.0	5	.0	95	0	20	11	5.5	11

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
OCT 14...	.2	1.5	119	0	98	19	15	1.0	.7	.07	.11	.34

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT 14...	660	0	5	400	5	<10	10	8300	160	14	1400

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT 14...	730	670	<.5	19	6	0	90	60	7.0	.00	0

COSHOCTON COUNTY--Continued

400954081445100. Local number, CO6 N9-2.
LOCATION.--Lat 40°09'54", long 81°44'51", Hydrologic Unit 05040005, near Plainfield.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 60 ft (18.3 m), cased to 18.8 ft (5.7 m), open end.
DATUM.--Land-surface datum is 877.82 ft (267.560 m) above mean sea level. Measuring point: Top of casing, 2.2 ft (0.67 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT												
14...	1730	905	7.2	11.0	1	.2	330	48	90	26	42	21

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
OCT												
14...	1.0	4.2	346	0	284	35	140	3.9	.3	.03	.03	.09

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT											
14...	20	0	0	200	5	<10	10	1900	1400	2	340

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT											
14...	0	340	<.5	1	0	0	920	20	3.0	.00	0

COSHOCTON COUNTY--Continued

400955081444600. Local number, Spring at C06.
LOCATION.--Lat 40°09'55", long 81°44'46", Hydrologic Unit 05040004, near Plainfield.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT 14...	1530	400	8.2	15.0	1	.3	170	33	53	8.6	3.4	4

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
OCT 14...	.1	1.1	164	0	135	1.7	37	2.4	.1	.12	.03	.09

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT 14...	70	0	0	200	1	<10	0	760	30	1	110

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT 14...	60	50	<.5	2	0	0	80	30	3.6	.00	0

COSHOCTON COUNTY--Continued

400958081444901. Local number, C06 W7-2.
LOCATION.--Lat 40°09'58", long 81°44'49", Hydrologic Unit 05040005, near Plainfield.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Observation water well, diameter 6 in (0.15 m), depth 140 ft (42.7 m), cased to 50 ft (15.2 m), open end.
DATUM.--Land-surface datum is 952.42 ft (290.298 m) (revised) above mean sea level. Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT 15...	0930	620	7.6	11.0	1	.0	14	0	3.2	1.4	120	94

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
OCT 15...	14	3.4	321	0	263	13	2.9	3.9	.9	.35	.05	.15

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT 15...	230	0	0	200	17	<10	0	1200	40	2	40

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT 15...	20	20	<.5	2	0	0	100	20	2.6	.00	4

402156081481300. Local number, A06 W10-3.
LOCATION.--Lat 40°21'56", long 81°48'13", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Shale-coal shales of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 66 ft (20.1 m), cased to 20 ft (6.1 m), open end.
DATUM.--Land-surface datum is 1011.87 ft (308.418 m) above mean sea level. Measuring point: Top of casing, 2.58 ft (0.786 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 14...	1100	1900	7.7	9.0	3	.0	410	61	94	42	300	61
MAR 15...	1600	1900	7.5	12.0	10	.3	580	260	130	62	250	47
JUN 15...	1645	1850	7.6	14.5	8	.0	460	130	110	45	290	57
SEP 13...	1315	1800	7.5	14.5	20	.0	530	190	130	50	210	45

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 14...	6.5	13	420	0	344	13	770	3.9	.3	.01	.02	.06
MAR 15...	4.5	18	396	0	325	20	760	4.4	.2	.00	.01	.03
JUN 15...	5.9	14	406	0	333	16	720	67	.3	.00	.02	.06
SEP 13...	4.0	16	420	0	344	21	700	4.7	.3	.00	.02	.06

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 14...	70	1	0	100	0	<10	10	5100	4400	12	120
MAR 15...	120	0	1	100	1	20	12	15000	3000	8	130
JUN 15...	20	0	2	0	0	<10	3	8600	1700	0	130
SEP 13...	0	0	0	100	0	10	9	6800	2300	18	120

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 14...	20	100	<.5	1	0	0	2400	30	2.4	.00	0
MAR 15...	20	110	.0	6	0	0	3200	110	12	.00	110
JUN 15...	10	120	.2	4	0	0	2900	50	7.6	.00	3
SEP 13...	10	110	.5	6	0	0	3600	60	9.1	.00	3

COSHOCTON COUNTY--Continued

402201081481200. Local number, ARS Watershed 172 Spring.
LOCATION.--Lat 40°22'01", long 81°48'12", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Pennsylvanian Age.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 13...	1400	560	7.3	7.0	2	.0	210	29	59	16	42	30
MAR 15...	1445	370	7.0	10.0	2	.3	130	6	36	10	25	29
JUN 15...	1445	670	7.4	10.5	3	.0	240	9	69	17	50	31
SEP 14...	0900	640	7.4	13.0	0	.0	240	0	68	16	50	31

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 13...	1.3	2.5	224	0	184	18	80	12	.4	.22	.02	.06
MAR 15...	1.0	2.3	152	0	125	24	58	7.3	.2	.42	.01	.03
JUN 15...	1.4	2.9	284	0	233	18	84	23	.3	.20	.05	.15
SEP 14...	1.4	3.0	292	0	239	19	84	18	.3	.19	.02	.06

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 13...	30	1	0	100	0	<10	0	320	20	0	20
MAR 15...	130	0	0	100	0	10	1	40	0	3	10
JUN 15...	30	0	2	0	0	<10	2	20	10	0	100
SEP 14...	80	0	0	100	0	<10	6	740	50	9	130

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 13...	20	0	<.5	2	0	0	310	0	4.8	.00	0
MAR 15...	0	10	.0	4	0	0	240	20	2.9	.00	9
JUN 15...	90	10	.0	4	0	0	400	40	3.8	.00	0
SEP 14...	130	0	.5	5	0	0	350	40	11	.00	0

COSHOCTON COUNTY--Continued

402208081481001. Local number, A06 W6-2.

LOCATION.--Lat 40°22'08", long 81°48'10", Hydrologic Unit 05040003, near Coshocton.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 98 ft (29.9 m), cased to 18.7 ft (5.7 m), open end.

DATUM.--Land-surface datum is 1136.32 ft (346.350 m) above mean sea level. Measuring point: Top of casing, 2.3 ft (0.70 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC												
14...	1245	430	7.2	10.0	10	.0	160	12	36	17	21	22
MAR												
18...	1045	373	6.3	9.0	0	.2	140	19	33	15	19	22
JUN												
16...	0845	365	6.3	12.0	3	.0	130	4	30	13	15	20
SEP												
14...	1115	410	6.4	12.0	7	.0	150	16	35	15	20	22

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC												
14...	.7	4.3	180	0	148	18	75	2.5	.2	.01	.25	.77
MAR												
18...	.7	4.5	152	0	125	122	66	2.4	.2	.00	.07	.21
JUN												
16...	.6	4.0	152	0	125	122	62	2.3	.2	.01	.21	.64
SEP												
14...	.7	4.2	162	0	133	103	73	1.9	.2	.00	.12	.37

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC											
14...	590	0	1	100	0	<10	0	12000	7000	13	280
MAR											
18...	110	0	0	0	0	10	7	11000	9000	8	350
JUN											
16...	80	0	1	0	0	10	5	16000	10000	3	360
SEP											
14...	320	0	3	0	0	<10	12	16000	4300	14	320

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC											
14...	70	210	3.7	8	0	0	400	40	.7	.00	0
MAR											
18...	30	320	.0	6	0	0	360	140	7.9	.00	13
JUN											
16...	40	320	.0	8	0	0	320	60	5.6	.00	0
SEP											
14...	30	290	.5	6	0	0	350	80	9.2	.00	2

COSHOCTON COUNTY--Continued

402208081481200. Local number, A06 #157.
LOCATION.--Lat 40°22'08", long 81°48'12", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Hand-dug well, diameter 3 ft (0.9 m), depth 13.9 ft (4.2 m).
DATUM.--Land-surface datum is 1115.45 ft (339.989 m) (revised) above mean sea level.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC												
13...	1530	480	6.7	5.0	10	.0	230	160	46	27	12	10
MAR												
18...	0930	450	6.5	7.0	5	.2	200	150	44	23	13	12
JUN												
16...	0945	378	6.4	11.0	3	.0	160	110	35	18	9.3	11
SEP												
14...	1015	495	6.5	13.5	7	.2	210	71	47	23	13	12

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC												
13...	.3	2.7	80	0	66	26	170	3.5	.3	.31	.03	.09
MAR												
18...	.4	2.8	70	0	57	35	160	3.4	.3	.28	.01	.03
JUN												
16...	.3	2.9	59	0	48	38	130	3.4	.2	.13	.02	.06
SEP												
14...	.4	2.9	172	0	141	87	110	3.1	.3	.00	.23	.71

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC											
13...	150	1	0	0	0	<10	50	910	60	9	30
MAR											
18...	100	0	0	0	0	10	3	190	10	5	10
JUN											
16...	20	0	2	0	0	<10	4	400	170	42	190
SEP											
14...	100	0	3	100	0	<10	12	8500	7200	42	1100

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC											
13...	10	20	<.5	2	0	0	180	50	3.7	.00	24
MAR											
18...	0	10	.0	3	0	0	210	40	2.1	.00	5
JUN											
16...	10	180	.0	7	0	0	160	60	4.2	.00	0
SEP											
14...	0	1100	.5	7	0	0	150	80	8.7	.00	13

COSHOCTON COUNTY--Continued

402208081481300. Local number, A06 W11-2.
LOCATION.--Lat 40°22'08", long 81°42'13", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 56 ft (17.1 m), cased to 18.4 ft (5.6 m), open end.
DATUM.--Land-surface datum is 1092.35 ft (332.948 m) above mean sea level. Measuring point: Top of casing, 1.6 ft (0.49 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 14...	0930	730	7.4	9.0	5	.0	340	60	100	22	29	15
MAR 17...	1545	760	7.0	10.0	10	.3	310	35	92	19	46	24
JUN 15...	1730	725	7.2	13.0	3	.0	330	49	100	19	26	15
SEP 13...	1445	705	7.1	15.5	5	.0	350	74	110	19	23	12

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 14...	.7	3.2	342	0	281	22	140	2.5	.3	.01	.05	.15
MAR 17...	1.1	3.6	333	0	273	53	130	2.3	.3	.00	.01	.03
JUN 15...	.6	3.3	340	0	279	34	120	2.3	.2	.00	.01	.03
SEP 13...	.5	3.5	340	0	279	43	120	2.1	.2	.00	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 14...	1200	1	1	0	0	<10	40	5300	630	10	570
MAR 17...	100	0	0	0	0	20	16	5600	900	4	390
JUN 15...	130	0	1	0	[illegible]	10	3	8800	1800	0	480
SEP 13...	210	0	0	100	[illegible]	<10	7	4000	650	19	510

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 14...	110	460	<.5	5	0	0	330	60	13	.00	2
MAR 17...	10	380	.0	3	0	0	420	50	4.9	.00	3
JUN 15...	60	420	.0	5	0	0	390	40	5.2	.00	0
SEP 13...	30	480	.5	7	0	0	320	40	8.5	.00	0

COSHOCTON COUNTY--Continued

402210081480700. Local number, A06 W3-1.
LOCATION.--Lat 40°22'10", long 81°48'07", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in (0.15 m), depth 75 ft (22.9 m), cased to 18.5 ft (5.6 m), open end.
DATUM.--Land-surface datum is 1206.26 ft (367.688 m) above mean sea level. Measuring point: Top of casing, 1.5 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--November 1976 to June 1977 (discontinued) (revised).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 56.66 ft (17.27 m) below land-surface datum, May 18, 1977 (revised); lowest, 63.09 ft (19.23 m) below land-surface datum, Dec. 15, 1976 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	62.70	---	---	---	---	---	57.95	---	---	---
10	---	---	62.84	---	---	---	---	57.89	58.36	---	---	---
15	---	---	63.09	---	---	---	---	57.52	58.87	---	---	---
20	---	---	---	---	---	---	---	56.69	---	---	---	---
25	---	62.22	---	---	---	---	---	57.52	---	---	---	---
EOM	---	62.53	---	---	---	---	---	57.64	---	---	---	---
MAX	---	62.53	63.09	---	---	---	---	58.05	58.87	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 15...	1030	400	7.7	10.0	7	.0	200	38	50	18	7.0	7
MAR 15...	1215	405	7.2	13.0	5	.0	210	45	54	18	8.8	8
JUN 16...	1700	41	7.2	14.0	3	.0	200	38	54	17	7.5	7
SEP 14...	1615	420	7.2	12.5	0	.0	200	35	53	17	8.1	8

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 15...	.2	1.7	196	0	161	6.3	51	3.9	.2	.06	.09	.28
MAR 15...	.3	2.0	200	0	164	20	53	4.3	.2	.06	.12	.37
JUN 16...	.2	1.9	204	0	167	21	51	3.3	.2	.01	.03	.09
SEP 14...	.2	2.0	204	0	167	21	53	3.4	.2	.02	.02	.06

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 15...	730	1	6	100	0	<10	0	7800	30	9	2400
MAR 15...	800	0	5	0	1	20	12	5800	10	8	1200
JUN 16...	600	0	1	0	0	<10	5	20	20	0	530
SEP 14...	430	0	0	0	0	<10	7	2400	90	11	400

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 15...	2100	280	1.1	11	0	0	160	30	4.2	.00	8
MAR 15...	960	240	.0	16	0	0	230	100	9.5	.00	14
JUN 16...	300	230	.0	6	0	0	190	40	5.4	.00	0
SEP 14...	170	230	.5	10	0	0	150	40	8.7	.00	10

COSHOCTON COUNTY--Continued

402210081480701. Local number, AD6 W4-2.

LOCATION.--Lat 40°22'10", long 81°48'07", Hydrologic Unit 05040003, near Coshocton.

AQUIFER.--Shales and sands of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 170 ft (51.8 m) cased to 78.9 ft (24.0 m), open end. After Oct. 18, 1976, 4 in (0.10 m) slotted casing to bottom of well.

DATUM.--Land-surface datum is 1206.07 ft (367.610 m) above mean sea level. Measuring point: Top of casing, 2.1 ft (0.64 m) above land-surface datum.

REMARKS.--Well redrilled Oct. 18, 1976 after cave-in.

PERIOD OF RECORD.--November 1976 to June 1977 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 91.93 ft (28.020 m) below land-surface datum, May 9, 1977; lowest, 93.22 ft (28.413 m) below land-surface datum, Dec. 13-14, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	93.19	---	---	---	92.43	91.99	92.02	---	---	---
10	---	---	93.21	---	---	---	92.43	92.04	91.99	---	---	---
15	---	---	---	---	---	---	92.41	91.99	91.97	---	---	---
20	---	---	---	---	---	92.75	92.21	91.99	92.24	---	---	---
25	---	92.95	---	---	---	92.66	92.13	91.99	92.26	---	---	---
EOM	---	92.97	---	---	---	92.59	92.12	92.00	---	---	---	---
MAX	---	92.97	93.22	---	---	92.75	92.59	92.11	92.27	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 15...	0930	900	7.5	9.0	8	.0	210	20	45	23	120	55
MAR 15...	1115	940	7.2	12.5	5	.3	270	90	62	29	85	40
JUN 16...	1600	860	7.2	12.5	3	.4	230	34	52	24	110	50
SEP 14...	1545	1100	7.4	13.5	7	.7	250	54	56	27	120	50

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 15...	3.6	6.7	228	0	187	12	300	1.7	.5	.01	.01	.03
MAR 15...	2.2	7.0	225	0	185	23	300	1.9	.3	.00	.02	.06
JUN 16...	3.2	6.8	237	0	194	24	290	3.0	.3	.00	.02	.06
SEP 14...	3.3	7.8	240	0	197	15	320	3.0	.3	.00	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 15...	30	1	0	100	0	<10	10	13000	11000	3	160
MAR 15...	50	0	0	100	1	10	5	24000	20000	4	160
JUN 16...	20	0	1	0	0	10	5	23000	16000	2	170
SEP 14...	0	0	2	100	0	<10	7	23000	14000	3	190

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 15...	30	130	<.5	2	0	0	860	50	1.6	.00	140
MAR 15...	0	170	.0	2	0	0	1100	60	13	.00	35
JUN 16...	20	150	.0	4	0	0	990	40	6.0	.00	0
SEP 14...	0	190	.5	5	0	0	1000	50	9.5	.00	25

COSHOCTON COUNTY--Continued

402210081481600. Local number, AO6 W7-1.

LOCATION.--Lat 40°22'10", long 81°48'16", Hydrologic Unit 05040003, near Coshocton.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 12 ft (3.6 m), cased to 9.7 ft (3.0 m), open end.

DATUM.--Land-surface datum is 1138.28 ft (346.948 m) above mean sea level. Measuring point: Top of casing, 2.3 ft (0.70 m) above land-surface datum.

PERIOD OF RECORD.--June to September 1977 (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.92 ft (2.414 m) below land-surface datum, July 7, 1977 (revised); lowest, 9.57 ft (2.917 m) below land-surface datum, Sept. 30, 1977 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	8.51	9.03	9.08
10	---	---	---	---	---	---	---	---	---	8.68	9.00	9.18
15	---	---	---	---	---	---	---	---	---	8.83	9.04	9.17
20	---	---	---	---	---	---	---	---	---	8.91	8.98	8.65
25	---	---	---	---	---	---	---	---	---	8.83	9.0[illegible]	8.65
EOM	---	---	---	---	---	---	---	---	8.97	9.03	9.14	9.57
MAX	---	---	---	---	---	---	---	---	---	9.03	9.14	9.57

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
MAR 17...	1330	388	6.8	7.5	5	.3	87	0	22	7.7	6.0	13

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
MAR 17...	.3	3.5	106	0	87	27	60	4.0	.1	.94	.02	.06

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAR 17...	40	0	4	100	0	10	5	42000	36000	4	850

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
MAR 17...	0	850	.0	19	0	0	100	40	9.8	.00	8

COSHOCTON COUNTY--Continued

402210081481601. Local number, A06 W8-2.
LOCATION.--Lat 40°22'10", long 81°48'16", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 101 ft (30.8 m), cased to 18.6 ft (5.7 m), open end.
DATUM.--Land-surface datum is 1138.64 ft (347.057 m) above mean sea level. Measuring point: Top of casing, 1.4 ft (0.43 m) above land-surface datum.
PERIOD OF RECORD.--June to September 1977 (revised).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.74 ft (9.370 m) below land-surface datum, June 30, 1977 (revised); lowest, 32.75 ft (9.982 m) below land-surface datum, Sept. 7, 1977 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	30.85	31.71	32.58
10	---	---	---	---	---	---	---	---	---	31.02	31.75	32.29
15	---	---	---	---	---	---	---	---	---	31.14	31.91	---
20	---	---	---	---	---	---	---	---	---	31.31	32.03	31.87
25	---	---	---	---	---	---	---	---	---	31.42	32.17	31.90
EOM	---	---	---	---	---	---	---	---	30.74	31.58	32.38	31.98
MAX	---	---	---	---	---	---	---	---	---	31.58	32.38	32.75

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC												
14...	1415	430	6.7	10.0	2	.0	83	17	42	17	5.4	6
MAR												
17...	1245	390	5.7	11.0	5	.2	170	120	39	17	7.1	8
JUN												
15...	1300	540	5.8	11.5	8	.2	210	140	51	21	5.7	5
SEP												
14...	1345	480	5.9	13.0	5	.2	180	150	44	18	6.7	7

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC												
14...	.2	3.4	80	0	66	26	150	1.7	.2	.01	.19	.58
MAR												
17...	.2	4.0	56	0	46	179	130	1.9	.2	.00	.12	.37
JUN												
15...	.2	4.0	87	0	71	221	200	1.8	.4	.00	.14	.43
SEP												
14...	.2	3.8	38	0	31	77	160	1.4	.2	.00	.18	.55

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC											
14...	470	1	58	100	0	<10	0	26000	16000	11	720
MAR											
17...	100	0	14	100	1	10	6	15000	1500	10	490
JUN											
15...	20	0	300	0	0	<10	3	26000	26000	2	1400
SEP											
14...	20	0	35	100	0	10	5	25000	21000	5	900

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC											
14...	110	610	2.9	150	0	0	200	70	2.4	.00	0
MAR											
17...	10	480	.0	170	0	0	240	280	9.8	.00	6
JUN											
15...	0	1400	.0	180	0	0	240	350	11	.00	4
SEP											
14...	0	900	.5	190	0	0	100	150	13	.00	2

402210081481602. Local number, AO6 W9-3.
LOCATION.--Lat 40°22'10", long 81°48'16", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 183 ft (55.8 m), cased to 114.5 ft (34.9 m), open end. After Oct. 18, 1976, 4 in (0.10 m) slotted casing to bottom of well.
DATUM.--Land-surface datum is 1138.35 ft (346.969 m) above mean sea level. Measuring point: Top of casing, 1.5 ft (0.46 m) above land-surface datum.
REMARKS.--Well redrilled October 18, 1976 after cave-in.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC												
14...	1330	1480	9.2	10.5	10	.0	6	0	1.1	.8	400	99
MAR												
17...	1430	1700	9.2	11.5	5	.2	3	0	1.1	.1	480	99
JUN												
15...	1415	1650	9.3	12.5	8	.3	5	0	1.2	.5	440	99
SEP												
14...	1315	1170	9.3	13.5	4	.3	6	0	1.4	.5	420	99

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC												
14...	71	2.4	692	136	794	1.0	51	46	4.5	.01	.05	.15
MAR												
17...	98	2.8	728	131	815	1.0	41	42	5.0	.00	.02	.06
JUN												
15...	85	2.6	782	141	876	.9	17	38	4.3	.00	.03	.09
SEP												
14...	78	2.6	808	161	931	.9	4.8	34	2.0	.00	.03	.09

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC											
14...	470	1	1	100	0	<10	0	11000	100	12	60
MAR											
17...	250	0	1	0	0	10	6	4400	30	7	20
JUN											
15...	50	0	1	0	0	<10	4	4200	20	3	20
SEP											
14...	20	0	0	0	0	<10	8	3900	10	12	30

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC											
14...	50	10	2.1	7	0	0	50	160	6.6	.00	44
MAR											
17...	10	10	.0	7	0	0	90	4	3.2	.00	13
JUN											
15...	10	10	.8	8	0	0	70	40	5.7	.00	0
SEP											
14...	20	10	.5	5	0	0	60	30	11	.00	62

402213081481700. Local number, A06 W1-1.
LOCATION.--Lat 40°22'13", long 81°48'17", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Shales of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 90 ft (27.4 m) cased to 18.8 ft (5.7 m), open end.
DATUM.--Land-surface datum is 1207.84 ft (368.150 m) above mean sea level. Measuring point: Top of casing, 1.2 ft (0.37 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
MAR 17...	1030	450	7.0	11.5	10	.0	220	57	56	19	10	9
JUN 16...	1415	460	7.6	15.0	5	.0	230	34	61	19	8.1	7

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
MAR 17...	.3	2.6	196	0	161	31	53	4.5	.2	4.5	.07	.21
JUN 16...	.2	2.0	240	0	197	9.6	46	3.5	.2	1.2	.04	.12

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAR 17...	1900	0	1	100	0	20	16	3800	20	8	140
JUN 16...	1100	0	1	0	0	10	6	20	10	0	130

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
MAR 17...	120	20	.0	13	1	0	200	90	7.6	.00	2
JUN 16...	110	20	.0	8	0	0	170	90	5.1	.00	1

COSHOCTON COUNTY--Continued

402213081481701. Local number, AD6 W2-2.
LOCATION.--Lat 40°22'13", long 81°48'17", Hydrologic Unit 05040003, near Coshocton.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 169 ft (51.5 m), cased to 98.8 ft (30.1 m), open end.
DATUM.--Land-surface datum is 1207.29 ft (367.982 m) above mean sea level. Measuring point: Top of casing, 2.2 ft (0.67 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
MAR 17...	0930	1800	7.2	12.0	5	.0	310	0	75	29	300	67
SEP 13...	1545	1430	7.1	14.5	4	2.0	360	0	88	35	210	55

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
MAR 17...	7.5	12	448	0	367	45	520	5.4	.4	21	.21	.64
SEP 13...	4.8	12	650	0	533	83	360	6.3	.4	.00	.53	1.6

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAR 17...	1900	1	5	500	2	20	49	25000	30	62	370
SEP 13...	420	0	3	100	0	<10	8	2600	330	10	350

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
MAR 17...	340	30	.0	40	8	0	2000	140	10	.00	13
SEP 13...	0	350	.5	11	0	0	2200	40	8.5	.00	88

401002080521800. Local number, J11 W4-1.

LOCATION.--Lat 40°10'02", long 80°52'18", Hydrologic Unit 05030101, near Harrisville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 60 ft (18.3 m), cased to 18.80 ft (5.73 m), open end.

DATUM.--Land-surface datum is 1251.37 ft (381.418 m) above mean sea level. Measuring point: Top of casing, 1.2 ft (0.37 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC												
01...	1400	530	7.1	4.0	5	.0	260	83	77	17	10	8
MAR												
08...	1430	525	6.8	12.0	0	.0	270	110	81	16	12	9
SEP												
20...	1330	560	7.0	14.0	0	.2	270	90	80	16	10	8

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC												
01...	.3	1.5	219	0	180	28	89	18	.1	--	.02	.06
MAR												
08...	.3	1.6	192	0	157	49	78	33	.1	1.4	.01	.03
SEP												
20...	.3	1.7	214	0	176	34	84	17	.1	.01	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC											
01...	140	1	1	0	1	<10	10	250	60	13	20
MAR											
08...	110	1	1	100	1	10	11	280	10	7	30
SEP											
20...	190	0	--	0	0	<10	7	1100	80	13	100

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC											
01...	10	10	<.5	5	0	0	370	30	4.6	.00	20
MAR											
08...	20	10	.0	3	0	0	300	60	8.1	.00	20
SEP											
20...	30	70	.0	10	0	0	360	50	7.6	.00	0

JEFFERSON COUNTY--Continued

401004080521900. Local number, J11 W6-1.
LOCATION.--Lat 40° 10'04", long 80°52'19", Hydrologic Unit 05030101, near Harrisville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 46 ft (14.0 m), cased to 17.8 ft (5.4 m), open end.
DATUM.--Land-surface datum is 1237.36 ft (377.147 m) above mean sea level. Measuring point: Top of casing, 3.2 ft (0.98 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 02...	0915	555	7.2	5.5	5	.0	250	150	81	12	8.7	7
MAR 09...	0945	595	6.9	11.0	0	.3	290	210	90	16	8.5	6
JUN 14...	0940	435	7.2	11.5	0	.0	190	120	59	11	6.6	7
SEP 20...	1045	450	7.3	13.0	0	.0	200	96	65	9.3	7.8	8

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 02...	.2	2.1	123	0	101	12	100	55	.1	--	.02	.06
MAR 09...	.2	2.2	102	0	84	21	190	21	.1	.11	.00	.00
JUN 14...	.2	1.6	84	0	69	8.5	120	9.5	.2	.11	.02	.06
SEP 20...	.2	1.6	128	0	105	10	85	15	.1	.01	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 02...	180	0	2	100	1	<10	20	800	40	23	310
MAR 09...	60	0	2	100	0	10	3	260	30	2	720
JUN 14...	110	0	3	10	0	<10	24	580	10	10	410
SEP 20...	10	0	--	0	0	<10	18	11000	10	40	460

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 02...	120	190	<.5	10	0	0	330	30	4.2	2.0	42
MAR 09...	0	720	.0	16	0	0	360	30	7.3	.00	8
JUN 14...	380	30	.0	30	0	0	290	70	6.1	.00	--
SEP 20...	450	10	.0	18	0	0	230	90	8.1	.00	0

JEFFERSON COUNTY--Continued

401004080521901. Local number, J11 W7-2.

LOCATION.--Lat 40°10'04", long 80°52'19", Hydrologic Unit 05030101, near Harrisville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 192 ft (58.5 m), cased to 53.8 ft (16.4 m), open end.

DATUM.--Land-surface datum is 1237.25 ft (377.114 m) above mean sea level. Measuring point: Top of casing, 3.0 ft (0.91 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 01...	1530	595	7.6	9.5	4	.2	150	0	36	14	84	55
MAR 09...	0845	575	7.5	10.5	0	.2	190	0	47	18	60	40
JUN 14...	1015	790	7.8	12.5	3	.0	61	0	15	5.8	170	85
SEP 20...	1130	810	7.8	13.5	5	.0	65	0	16	6.0	170	85

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 01...	3.0	1.8	360	0	295	14	31	9.9	.8	--	.03	.09
MAR 09...	1.9	2.2	342	0	281	17	35	11	.5	.01	.01	.03
JUN 14...	9.4	1.4	471	0	386	12	22	22	1.7	.09	.09	.28
SEP 20...	9.2	1.5	470	0	385	12	24	29	2.0	.02	.08	.25

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 01...	40	1	0	100	2	<10	0	580	80	3	20
MAR 09...	30	0	0	100	0	10	8	290	30	2	20
JUN 14...	400	0	1	0	0	<10	4	2200	60	19	40
SEP 20...	80	0	--	0	0	<10	16	550	0	17	120

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 01...	10	10	<.5	1	0	0	1400	90	5.6	.00	27
MAR 09...	0	20	.0	1	0	0	1500	30	6.1	.00	20
JUN 14...	20	20	.2	6	0	0	720	40	7.1	.00	68
SEP 20...	110	10	.0	13	0	0	300	50	8.5	.00	0

JEFFERSCN COUNTY--Continued

401007080522400. Local number J11 W8-2.

LOCATION.--Lat 40°10'07", long 80°52'24", Hydrologic Unit 05030101, near Harrisville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 105 ft (32.C m), cased to 20.43 ft (6.23 m), open end.

DATUM.--Land-surface datum is 1156.67 ft (352.553 m) above mean sea level. Measuring point: Top of casing, 0.57 ft (0.174 m) above land-surface datum.

PERIOD OF RECORD.--July to September 1977 (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.17 ft (10.720 m) below land-surface datum, July 12, 1977 (revised); lowest, 35.92 ft (10.948 m) below land-surface datum, July 21, 1977 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	---	35.54	---
10	---	---	---	---	---	---	---	---	---	---	35.54	---
15	---	---	---	---	---	---	---	---	---	35.52	35.54	---
20	---	---	---	---	---	---	---	---	---	35.87	---	---
25	---	---	---	---	---	---	---	---	---	35.25	---	---
EOM	---	---	---	---	---	---	---	---	---	35.49	---	---
MAX	---	---	---	---	---	---	---	---	---	35.92	35.68	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 02...	1030	570	7.6	9.5	5	.0	200	0	46	20	58	39
MAR 09...	1045	590	7.5	11.5	0	.2	150	0	34	15	85	55
JUN 14...	0830	580	7.4	12.0	0	.0	250	0	61	23	33	22
SEP 20...	0915	605	7.3	13.0	0	.0	250	0	61	24	33	22

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 02...	1.8	2.2	334	0	274	13	47	12	.2	--	.02	.06
MAR 09...	3.1	2.2	322	0	264	16	50	11	.2	.52	.01	.03
JUN 14...	.9	1.9	310	0	254	20	47	10	.2	.29	.00	.00
SEP 20...	.9	2.0	322	0	264	26	47	14	.1	--	--	--

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 02...	280	0	2	400	1	<10	10	12000	30	11	810
MAR 09...	170	0	1	400	0	10	3	1900	10	3	200
JUN 14...	700	0	15	500	0	10	7	3600	0	12	300
SEP 20...	1100	0	--	200	0	<10	14	10000	0	14	1700

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 02...	810	0	<.5	4	0	0	1600	30	4.5	.00	0
MAR 09...	190	10	.0	3	0	0	1100	40	7.2	.00	6
JUN 14...	300	0	.0	4	0	0	1200	30	5.4	.00	1
SEP 20...	1700	0	.0	18	0	0	1100	90	6.2	.00	0

401010080521800. Local number, J11 W3-1.
LOCATION.--Lat 40°10'10", long 80°52'18", Hydrologic Unit 05030101, near Harrisville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 38 ft (11.6 m), cased to 18.6 ft (5.7 m), open end.
DATUM.--Land-surface datum is 1235.20 ft (376.489 m) above mean sea level. Measuring point: Top of casing, 2.38 ft (0.725 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 02...	1130	405	6.7	3.0	5	.0	170	110	48	13	9.1	10
MAR 09...	1300	415	5.9	12.5	0	.3	180	160	49	14	8.0	9

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 02...	.3	1.5	82	0	67	26	110	14	.1	--	.03	.09
MAR 09...	.3	1.8	28	0	23	56	140	14	.1	.13	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 02...	90	1	1	100	1	<10	0	770	120	11	80
MAR 09...	150	0	1	100	0	10	4	660	170	100	250

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 02...	20	60	<.5	7	0	0	200	70	3.8	1.0	25
MAR 09...	0	250	.0	10	0	0	220	40	9.2	.00	15

401011080521600. Local number, J11 W1-1.
LOCATION.--Lat 40°10'11", long 80°52'16", Hydrologic Unit 05030101, near Harrisville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 61.5 ft (18.7 m), cased to 18.5 ft (5.7 m), open end.
DATUM.--Land-surface datum is 1259.5 ft (383.900 m) above mean sea level. Measuring point: Top of casing, 2.5 ft (0.76 m) above land-surface datum.
PERIOD OF RECORD.--September 1976 to current year (revised).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.53 ft (13.573 m) below land-surface datum, Feb. 28, 1977 (revised); lowest, 55.54 ft (16.929 m) below land-surface datum, Oct. 23-24, 1976 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	55.38	54.22	---	54.31	55.06	---	---	---	---	49.98	51.51	53.81
10	55.44	54.22	53.59	54.38	55.35	---	---	---	---	48.84	52.22	54.02
15	55.31	54.44	53.03	54.59	51.72	---	46.93	---	51.53	51.00	52.72	54.27
20	55.48	54.65	53.23	54.61	52.33	---	---	---	49.54	51.63	52.90	54.29
25	55.52	54.90	53.71	54.71	45.72	---	---	---	50.03	49.90	53.30	53.55
EOM	55.29	55.10	54.00	54.96	44.53	---	---	---	50.02	49.84	53.64	53.63
MAX	55.54	55.15	55.12	54.96	55.38	---	47.03	48.16	51.53	51.77	53.64	54.30

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 02...	1345	720	7.3	8.0	2	.0	400	64	110	31	5.7	3
MAR 09...	1430	725	7.3	12.5	0	.2	400	69	110	30	6.3	3
JUN 14...	1330	730	7.3	13.0	3	.0	390	55	110	29	5.6	3
SEP 20...	1445	740	7.3	14.0	0	.0	430	81	120	31	6.0	3

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 02...	.1	1.0	413	0	339	33	28	11	.1	--	.04	.12
MAR 09...	.1	1.7	401	0	329	32	29	12	.1	11	.04	.12
JUN 14...	.1	1.6	413	0	339	33	24	11	.1	10	.20	.61
SEP 20...	.1	1.7	422	0	346	34	28	10	.2	9.9	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 02...	970	1	0	200	6	<10	10	3000	40	21	80
MAR 09...	1100	0	1	300	2	10	11	3000	30	38	130
JUN 14...	1200	0	1	200	0	10	50	30	10	54	150
SEP 20...	560	0	0	0	0	<10	21	1500	0	18	40

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 02...	80	0	<.5	12	3	0	380	70	2.9	1.0	1
MAR 09...	120	10	.0	6	2	0	370	30	7.5	.00	17
JUN 14...	140	10	.0	12	3	3	420	80	5.4	.00	0
SEP 20...	30	10	.0	10	1	0	370	60	7.8	.00	0

JEFFERSON COUNTY--Continued

401011080521601. Local number, J11 W2-2.
LOCATION.--Lat 40°10'11", long 80°52'16", Hydrologic Unit 05030101, near Harrisville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 211 ft (64.3 m), cased to 65 ft (19.8 m), open end.
DATUM.--Land-surface datum is 1259.41 ft (383.868 m) above mean sea level. Measuring point: Top of casing, 2.0 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--September 1976 to current year (revised).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.04 ft (23.787 m) below land-surface datum, Apr. 4, 1977 (revised); lowest, 87.77 ft (26.752 m) below land-surface datum, Sept. 29-30, 1977 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.05	---	85.93	85.39	---	82.66	---	83.90	84.47	84.87	84.95	85.57
10	85.07	---	85.73	85.54	---	82.64	---	83.22	84.55	84.83	85.12	85.63
15	85.07	84.56	85.14	85.67	---	81.64	82.71	83.39	84.64	85.47	85.25	85.69
20	---	84.66	84.93	84.89	84.80	80.18	83.14	83.72	84.71	85.48	85.26	85.71
25	---	84.80	85.00	84.96	84.27	81.56	83.53	84.02	84.77	85.10	85.35	87.74
EOM	---	84.89	85.19	---	83.27	82.47	83.79	84.27	84.84	84.81	85.46	87.77
MAX	85.14	84.89	85.94	85.75	85.03	83.89	83.79	84.27	84.84	85.49	85.46	87.77

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
DEC 02...	1445	760	7.2	9.0	2	.0	360	29	93	32	29	15
MAR 09...	1500	750	7.2	12.0	0	.2	380	55	99	33	27	13
JUN 14...	1430	817	7.2	12.0	3	.0	310	0	78	28	65	31
SEP 20...	1530	805	7.1	13.0	0	.0	390	43	100	33	33	16

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
DEC 02...	.7	2.4	409	0	335	41	85	25	.2	--	.12	.37
MAR 09...	.6	2.4	400	0	328	40	77	25	.2	.19	.01	.03
JUN 14...	1.6	2.5	422	0	346	43	78	23	.2	.37	.02	.06
SEP 20...	.7	2.4	418	0	343	53	77	24	.2	.25	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 02...	320	1	3	100	0	<10	20	210000	40	15	430
MAR 09...	90	0	1	100	0	10	19	9000	10	10	260
JUN 14...	400	0	4	200	0	10	6	20	10	8	120
SEP 20...	40	0	--	0	0	<10	16	6000	10	13	120

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
DEC 02...	430	0	<.5	4	0	0	1600	140	2.9	.00	31
MAR 09...	240	20	.0	7	0	0	1300	50	7.6	.00	12
JUN 14...	110	10	.0	5	0	0	1800	40	5.1	.00	0
SEP 20...	110	10	.0	7	0	0	1500	60	7.9	.00	0

401119080480700. Local number, JOB W5-1.
LOCATION.--Lat 40°11'19", long 80°48'07", Hydrologic Unit 05030101, near Mt. Pleasant.
AQUIFER.--Limestones and shales of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 125 ft (38.1 m) cased to 19.7 ft (6.0 m), open end.
DATUM.--Land-surface datum is 1101.19 ft (335.643 m) above mean sea level. Measuring point: Top of casing, 1.3 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--June to September 1977.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.96 ft (17.971 m) below land-surface datum, July 24-Aug. 2, 1977; lowest, 59.11 ft (18.017 m) below land-surface datum, September 19, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	58.99	58.9[illegible]	59.06
10	---	---	---	---	---	---	---	---	---	58.99	58.99	59.08
15	---	---	---	---	---	---	---	---	---	59.00	59.00	59.09
20	---	---	---	---	---	---	---	---	---	59.01	59.01	59.10
25	---	---	---	---	---	---	---	---	---	58.96	59.03	59.10
EOM	---	---	---	---	---	---	---	---	58.98	58.96	59.05	59.10
MAX	---	---	---	---	---	---	---	---	58.98	59.01	59.05	59.11

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
MAR 10...	0930	860	7.4	11.5	0	.2	500	260	130	42	10	4
JUN 13...	1445	952	7.6	12.5	0	.0	550	310	140	48	9.0	3
SEP 19...	1515	840	7.6	13.5	0	.0	490	240	120	46	9.3	4

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
MAR 10...	.2	2.7	289	0	237	18	270	2.9	.2	.28	.03	.09
JUN 13...	.2	2.8	292	0	239	12	300	3.9	.2	.26	.06	.18
SEP 19...	.2	2.7	300	0	246	12	250	3.4	.1	.14	.11	.34

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAR 10...	650	0	1	200	0	10	3	1300	10	4	40
JUN 13...	1400	0	3	200	0	20	6	2500	10	9	80
SEP 19...	1500	0	0	0	0	<10	5	1700	20	29	50

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
MAR 10...	40	0	.0	3	1	0	1700	50	7.3	.00	12
JUN 13...	70	10	.0	3	2	0	2300	70	6.3	.00	0
SEP 19...	50	0	.0	4	0	0	2300	40	8.1	.00	0

JEFFERSON COUNTY--Continued

401119080480701. Local number, JOB #2-2.
LOCATION.--Lat 40°11'19", long 80°48'07", Hydrologic Unit 05030101, near Mt. Pleasant.
AQUIFER.--Shales and limestones of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 220 ft (67.1 m) cased to 138.6 ft (42.2 m), open end.
DATUM.--Land-surface datum is 1100.67 ft (335.484 m) above mean sea level. Measuring point: Top of casing 2.2 ft (0.67 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
MAR 10...	1030	2350	7.5	15.0	0	.4	79	0	22	5.9	560	93
JUN 13...	1645	2300	8.1	14.0	0	.0	29	0	7.3	2.5	540	97
SEP 19...	1615	2400	8.0	15.5	0	.0	38	0	10	3.1	600	97

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
MAR 10...	27	5.3	980	0	804	50	170	230	3.9	.26	.10	.31
JUN 13...	44	3.3	1030	0	845	13	74	240	4.8	.35	.01	.03
SEP 19...	43	3.5	1020	0	837	16	65	320	4.6	.30	.03	.09

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAR 10...	1000	0	3	200	0	10	10	3000	40	76	50
JUN 13...	1300	0	2	200	0	20	17	8000	10	60	100
SEP 19...	790	0	--	100	2	<10	17	1600	10	60	40

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
MAR 10...	30	20	.0	8	0	0	700	30	5.9	.00	--
JUN 13...	100	0	.0	19	0	0	630	60	4.0	.00	0
SEP 19...	30	10	.0	7	0	0	400	40	8.5	.00	63

401112080480903. Local number, JOB #4-3.
LOCATION.--Lat 40°11'12", long 80°48'09", Hydrologic Unit 05030101, near Mt. Pleasant.
AQUIFER.--Shales of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 360 ft (109.7 m) cased to 232.0 ft (70.7 m), open end.
DATUM.--Land-surface datum is 1101.46 ft (335.725 m) above mean sea level. Measuring point: Top of casing, 1.9 ft (0.58 m) above land-surface datum.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HYDRO-GEN SULFIDE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
JUN												
13...	1300	15100	7.5	13.0	0	.0	300	0	64	35	3800	96
SEP												
19...	1730	15000	7.6	15.5	20	.3	280	0	58	33	3800	97

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)
JUN												
13...	95	13	718	0	589	36	33	5600	.3	.01	.05	.15
SEP												
19...	99	13	764	0	627	31	13	5600	.3	.00	.10	.31

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
JUN											
13...	240	0	2	4000	0	20	20	7400	50	260	90
SEP											
19...	220	0	--	6000	3	<20	21	7500	120	30	130

DATE	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRON-TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
JUN											
13...	50	40	.2	4	0	0	9200	160	5.2	.01	0
SEP											
19...	70	60	.0	8	0	0	10000	220	8.4	.00	0

MUSKINGUM COUNTY

394841081463200. Local number, M09 W10-3.
LOCATION.--Lat 39°48'41", long 81°46'32", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 190 ft (57.9 m), cased to 41 ft (12.5 m), open end. After Sept. 29, 1976, slotted casing to bottom of well (revised).
DATUM.--Land-surface datum is 941.51 ft (286.972 m) above mean sea level. Measuring point: Top of casing, 0.98 ft (0.30 m) above land-surface datum. Prior to September 29, 1976, top of casing 2.8 ft (0.84 m) above land-surface datum.
REMARKS.--Well redrilled September 29, 1976 because well collapsed.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HYDRO-GEN SULFIDE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV 18...	0930	1750	8.8	11.5	160	.0	12	0	3.2	.9	560	99
MAR 16...	1330	785	8.7	12.0	15	.2	100	0	15	16	130	73
JUN 23...	1130	1350	9.0	14.0	250	.0	2	0	.3	.4	720	100
SEP 15...	1245	1130	8.9	13.5	180	.0	4	0	1.0	.3	320	99

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)
NOV 18...	71	1.5	444	41	432	1.3	36	530	3.6	.48	.11	.34
MAR 16...	5.6	2.3	324	16	292	1.1	41	30	1.8	.23	.12	.37
JUN 23...	90	.9	459	41	445	.9	42	160	4.9	.00	.11	.34
SEP 15...	72	1.0	474	37	450	1.1	38	140	4.2	.00	.10	.31

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
NOV 18...	3400	0	11	100	11	10	10	7100	40	27	50
MAR 16...	2500	0	6	200	0	20	12	17000	10	13	130
JUN 23...	40	0	3	100	0	20	10	14000	340	11	40
SEP 15...	710	0	1	0	0	10	9	7800	420	10	30

DATE	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRON-TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV 18...	40	10	<.5	13	0	0	190	30	5.6	.01	5
MAR 16...	110	20	.0	20	0	0	580	40	8.7	.00	3
JUN 23...	30	10	.0	7	0	0	90	30	5.8	.00	10
SEP 15...	30	0	.5	10	0	0	70	40	--	.00	10

MUSKINGUM COUNTY--Continued

394845081462400. Local number, M09 Dug well.
LOCATION.--Lat 39°48'45", long 81°46'24", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Shales and limestones of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Hand dug well, diameter 4 ft (1.2 m), depth 18.9 ft (5.8 m).
DATUM.--Land-surface datum is 1001.97 ft (305.400 m) above mean sea level. Measuring point: Top of casing at land-surface datum.
REMARKS.--Well destroyed by strip-mining operation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV												
18...	1445	560	7.8	12.5	2	.2	290	46	82	20	12	8

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
NOV												
18...	.3	.9	294	0	241	7.5	50	2.2	.2	.15	.03	.09

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV											
18...	60	0	3	100	2	<10	10	120	10	21	20

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV											
18...	0	20	<.5	2	0	0	410	50	3.7	.00	2

MUSKINGUM COUNTY--Continued

394845081462600. Local number. MD9 W5-2.

LOCATION.--Lat 39°48'45", long 81°46'26", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 49 ft (14.9 m), cased to 17.3 ft (5.3 m), open end.

DATUM.--Land-surface datum is 973.03 ft (296.580 m) above mean sea level. Measuring point: Top of casing, 3.7 ft (1.13 m) above land-surface datum.

PERIOD OF RECORD.--June to September 1977 (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.08 ft (4.60 m) below land-surface datum, Sept. 20, 1977 (revised); lowest, 16.35 ft (4.98 m) below land-surface datum, July 10, 1977 (revised).

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	16.16	---	---
10	---	---	---	---	---	---	---	---	---	16.35	---	---
15	---	---	---	---	---	---	---	---	---	16.12	---	---
20	---	---	---	---	---	---	---	---	---	15.85	---	15.08
25	---	---	---	---	---	---	---	---	---	15.75	---	15.14
EOM	---	---	---	---	---	---	---	---	16.10	15.56	---	15.27
MAX	---	---	---	---	---	---	---	---	16.10	16.35	---	15.30

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV 18...	1330	900	8.1	12.5	5	.0	20	0	5.7	1.4	230	96
MAR 16...	1530	860	8.1	12.5	5	.2	21	0	5.7	1.6	210	95
JUN 23...	1345	880	8.1	14.5	40	.0	14	0	2.3	2.0	220	97
SEP 15...	1400	890	8.0	14.5	35	.2	24	0	6.2	2.0	230	95

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
NOV 18...	22	1.4	568	0	466	7.2	36	8.3	2.1	.04	.04	.12
MAR 16...	20	1.5	498	0	408	6.3	45	7.6	1.9	.20	.03	.09
JUN 23...	26	1.4	549	0	450	7.0	39	4.4	1.8	.04	.02	.06
SEP 15...	21	1.5	568	0	466	9.1	39	4.2	1.9	.00	.01	.03

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV 18...	--	--	--	--	--	--	--	830	20	--	20
MAR 16...	830	0	2	200	0	10	7	3500	20	8	40
JUN 23...	40	0	3	300	0	10	8	10000	10	42	40
SEP 15...	100	0	0	100	0	<10	8	6200	10	18	40

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV 18...	10	10	--	--	--	--	--	--	.8	--	68
MAR 16...	30	10	.0	7	0	0	340	50	2.4	.00	3
JUN 23...	30	10	.0	6	0	0	350	30	7.8	.00	14
SEP 15...	30	10	.5	8	0	0	310	50	12	.00	0

MUSKINGUM COUNTY--Continued

394852081462000. Local number, M09 W8-1.
LOCATION.--Lat 39°40'52", long 81°46'20", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 55 ft (16.8 m), cased to 21 ft (6.4 m), open end.
DATUM.--Land-surface datum is 1053.59 ft (321.134 m) above mean sea level. Measuring point: Top of casing, 1.7 ft (0.58 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operations.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV 18...	1550	840	7.5	10.5	2	.0	320	0	73	33	24	14

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
NOV 18...	.6	1.9	400	0	328	20	49	4.2	.3	.12	.06	.18

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV 18...	110	0	2	100	1	<10	10	310	10	17	110

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV 18...	30	80	<.5	1	0	0	1600	40	3.0	.00	120

MUSKINGUM COUNTY--Continued

394852081462001. Local number, MO9 W9-2.
LOCATION.--Lat 39°48'52", long 81°46'20", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 140 ft (42.7 m), cased to 59.5 ft (18.1 m), open end.
DATUM.--Land-surface datum is 1053.69 ft (321.165 m) above mean sea level. Measuring point: Top of casing, 1.5 ft (0.46 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operations.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV												
18...	1530	3000	7.9	12.0	1	.0	59	0	15	5.3	670	96

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
NOV												
18...	38	3.3	608	0	499	12	12	680	2.9	.36	.07	.21

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV											
18...	380	0	2	500	1	<10	10	1300	30	12	30

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV											
18...	20	10	<.5	2	0	0	970	30	3.2	.01	16

MUSKINGUM COUNTY--Continued

394853081462800. Local number, MO9 W11-2.

LOCATION.--Lat 39°48'53", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), cased to 20.3 ft (6.2 m), open end.

DATUM.--Land-surface datum is 1020.65 ft (311.094 m) above mean sea level. Measuring point: Top of casing, 2.7 ft (0.82 m) above land-surface datum.

REMARKS.--Well destroyed by strip-mining operations.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV												
17...	1245	620	7.3	12.5	2	.0	140	0	35	12	100	61
MAR												
16...	1700	605	7.3	12.5	10	.3	220	0	60	18	64	38

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
NOV												
17...	3.7	1.9	432	0	354	35	18	1.9	.3	.00	.03	.09
MAR												
16...	1.9	1.3	409	0	335	33	33	2.7	.3	.00	.95	2.9

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV											
17...	--	--	--	--	--	--	--	5400	470	--	100
MAR											
16...	20	1	59	600	0	30	69	78000	130	34	1300

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV											
17...	0	100	--	--	--	--	--	--	3.4	--	0
MAR											
16...	1000	280	.0	130	1	0	840	230	13	.00	2

MUSKINGUM COUNTY--Continued

394855081461600. Local number, M09 W6-1.
LOCATION.--Lat 39°48'55", long 81°46'16", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Sand, shales and coals of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 130 ft (39.6 m), cased to 20.5 ft (6.2 m), open end.
DATUM.--Land-surface datum is 1123.07 ft (342.312 m) above mean sea level. Measuring point: Top of casing, 1.5 ft (0.46 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operations.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV												
18...	1115	800	7.4	12.0	3	5.8	400	27	80	48	22	11

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)
NOV												
18...	.5	2.7	452	0	371	29	120	5.6	.3	.33	.13	.40

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
NOV											
18...	500	0	6	400	20	<10	20	1200	60	33	130

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
NOV											
18...	110	20	<.5	5	0	0	2600	70	1.4	.00	3

MUSKINGUM COUNTY--Continued

394855081462700. Local number, M09 W3-1.
LOCATION.--Lat 39°48'55", long 81°46'27", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Shales of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 31 ft (9.5 m), cased to 11.5 ft (3.5 m), open end.
DATUM.--Land-surface datum is 1039.93 ft (333.430 m) above mean sea level. Measuring point: Top of casing, 2.5 ft (0.76 m) above land-surface datum.
REMARKS.--Well destroyed by strip-mining operation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
NOV											
17...	1340	460	7.6	13.5	2	.0	230	12	62	19	5.2

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV										
17...	5	.1	.6	270	0	221	11	35	1.6	.3

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)
NOV										
17...	.09	.07	.21	7100	0	150	140	10	1.7	100

MUSKINGUM COUNTY--Continued

394859081462801. Local number, MO9 W1-1.
LOCATION.--Lat 39°48'59", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Shales of Upper Pennsylvanian Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 90 ft (27.4 m), cased to 19.2 ft (5.8 m), open end.
DATUM.--Land-surface datum is 1097.83 ft (334.619 m) above mean sea level. Measuring point: Top of casing, 1.8 ft (0.55 m).
REMARKS.--Well destroyed by strip-mining operation.
PERIOD OF RECORD.--June to December 1976 (discontinued) (revised).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.47 ft (19.041 m) below land-surface datum, July 14, 1976 (revised); lowest, 87.05 ft (26.533 m) below land-surface datum, Dec. 7, 1976 (revised).
REVISIONS.--Revised water-level data for the water year 1976, superceding those published in the report for 1976, are given herein.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	68.17	63.54	---	---
10	---	---	---	---	---	---	---	---	67.59	62.86	---	76.90
15	---	---	---	---	---	---	---	---	66.84	62.84	---	77.19
20	---	---	---	---	---	---	---	---	66.09	63.41	---	77.31
25	---	---	---	---	---	---	---	---	65.26	64.20	---	77.36
EOM	---	---	---	---	---	---	---	---	64.43	---	---	77.44
MAX	---	---	---	---	---	---	---	---	68.25	64.35	---	77.47

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	77.51	---	86.85	---	---	---	---	---	---	---	---	---
10	77.64	---	---	---	---	---	---	---	---	---	---	---
15	77.70	82.70	---	---	---	---	---	---	---	---	---	---
20	77.69	83.96	---	---	---	---	---	---	---	---	---	---
25	77.75	85.28	---	---	---	---	---	---	---	---	---	---
EOM	77.33	86.32	---	---	---	---	---	---	---	---	---	---
MAX	77.83	86.32	87.05	---	---	---	---	---	---	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
NOV											
19...	0930	540	7.7	13.0	2	.0	350	11	62	48	5.3

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV										
19...	3	.1	1.8	416	0	341	13	30	3.7	.2

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)
NOV										
19...	.16	.03	.09	1600	10	20	20	0	.8	13

MUSKINGUM COUNTY--Continued

394859081462800. Local number, M09 W2-2.

LOCATION.--Lat 39°48'59", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Shales of Upper Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in (0.15 m), depth 181 ft (55.2 m), cased to 95.2 ft (29.0 m), open end.

DATUM.--Land-surface datum is 1097.89 ft (334.637 m) above mean sea level. Measuring point: Top of casing, 1.8 ft (0.55 m) above land-surface datum.

REMARKS.--Well destroyed by strip-mining operation.

PERIOD OF RECORD.--June to December 1976 (discontinued) (revised).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 92.27 ft (28.124 m) below land-surface datum, June 19, 1976 (revised); lowest, 103.78 ft (31.632 m) below land-surface datum, Dec. 18, 1976 (revised).

REVISIONS.--Revised water-level data for the water year 1976, superceding those published in the report for 1976, are given herein.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	94.12	93.90	92.80	94.80
10	---	---	---	---	---	---	---	---	93.86	93.88	93.38	94.88
15	---	---	---	---	---	---	---	---	93.81	93.52	94.32	95.04
20	---	---	---	---	---	---	---	---	92.43	93.34	94.74	95.07
25	---	---	---	---	---	---	---	---	93.48	93.50	94.77	95.75
EOM	---	---	---	---	---	---	---	---	93.71	94.47	94.70	94.97
MAX	---	---	---	---	---	---	---	---	94.22	94.92	95.04	96.57

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	95.19	---	96.47	---	---	---	---	---	---	---	---	---
10	95.46	---	100.52	---	---	---	---	---	---	---	---	---
15	96.00	97.04	100.84	---	---	---	---	---	---	---	---	---
20	95.88	96.50	---	---	---	---	---	---	---	---	---	---
25	95.88	95.80	---	---	---	---	---	---	---	---	---	---
EOM	95.07	96.18	---	---	---	---	---	---	---	---	---	---
MAX	97.20	99.12	103.78	---	---	---	---	---	---	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HYDROGEN SULFIDE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
NOV											
19...	1100	700	7.8	12.5	2	.0	350	0	76	39	25

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV										
19...	13	.6	1.5	448	0	367	11	53	2.4	.3

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)
NOV										
19...	.00	.03	.09	770	160	50	10	40	.5	25

CHEMICAL CHARACTERISTICS AND BIOLOGICAL INDICES OF SELECTED LAKES

The following table lists the lakes at which chemical and physical characteristics and biological indices were obtained during water year 1977. These lakes were sampled to evaluate current conditions and existing or potential problems, determine chemical and physical characteristics of inflow from major tributaries, and provide basic information for determining the necessity for more intensive studies where problems exist. The results of these studies may be obtained by writing to the District Chief, WRD, 975 West Third Avenue, Columbus, Ohio, 43212. The complete study will be available in a separate report to be published in the near future.

395702083443800	Clarence J. Brown Reservoir	Clark County
405815081071400	Deer Creek Reservoir	Stark County
395939082050500	Dillon Lake	Muskingum County
402931083514700	Indian Lake	Logan County
401144083584700	Kiser Lake	Champaign County
402942082313100	Knox Lake	Knox County
410032081323000	Long Lake	Summit County
410921081045800	Michael J. Kirwan Reservoir	Portage County
405544081313700	Nimisila Reservoir	Summit County
401116081125500	Piedmont Lake	Harrison County
391258084045900	Stonelick Lake	Clermont County
405747081321700	Turkeyfoot Lake	Summit County

INDEX

Preceding page blank

Page

Accuracy of field data and computed results..... 5
Acre-foot, definition of..... 2
Adamsville, Raccoon Creek at..... 212-217
Africa, Alum Creek at..... 236-237
Alliance, Mahoning River at..... 16-17
Alum Creek, at Africa..... 236-237
  at Columbus..... 238-239
  near Kilbourne..... 234-235
Alum Creek Lake, contents of..... 289,290
Analyses of samples collected at miscellaneous sites..... 418
Anderson Fork near New Burlington..... 316-317
Apple Creek at Wooster..... 403
Aquifer, definition of..... 2
Armstrongs Mills, Captina Creek at..... 72-73
Artesian, definition of..... 2
Ash mass, definition of..... 3
Athens, Hocking River below..... 184-190
Atwood Lake, contents of..... 169,172

BActeria, definition of..... 2
Bainbridge, Paint Creek below Paint Creek Dam near..... 272-273
  Paint Creek Lake near..... 289,290
Barnes Run near Summerfield..... 414
Barretts Mills, Rocky Fork near..... 274-275
Batavia, East Fork Little Miami River near..... 328-329
Beach City, Beach City Lake near..... 169,172
  Sugar Creek below Beach City Dam near..... 98-99
Beach City Lake, contents of..... 169,172
Beaver Creek (Great Miami River basin), at Brighton..... 417
Beaver River basin, hydrologic-data stations records in..... 16-55
  reservoirs in..... 54-55
Bed material, definition of..... 3
Bellepoint, Mill Creek near..... 220-221
Berlin Center, Berlin Lake near..... 54-55
  Mahoning River near..... 18-19
Berlin Lake, contents of..... 54-55
Big Darby Creek, at Darbydale..... 415
  at Darbyville..... 248-249
Big Four Hollow Creek near Lake Hope..... 200-204
Big Threemile Creek near Aberdeen..... 411
Big Walnut Creek, above Sunbury..... 408
  at Central College..... 232-233
  at Rees..... 240-241
Biochemical oxygen demand, definition of..... 3
Biomass, definition..... 3
Black Fork, at Loudonville..... 118-119
  below Charles Mill Dam, near Mifflin..... 114-115
Blake Run near Reily..... 417
Bloomfield, Little Muskingum River at..... 74-75
Bokengehalas Creek near De Graff..... 340
Bolivar, Bolivar Reservoir at..... 169,172
Bolivar Reservoir, contents of..... 169,172
Bottom material (see Bed material)..... 3
Bourneville, Paint Creek near..... 276-277
Bradford, Greenville Creek near..... 346
Bridge Creek near Greenville..... 417
Bullskin Creek near Felicity..... 413
Burr Oak, Burr Oak Reservoir at..... 180
Burr Oak Reservoir, contents of..... 180

Caesar Creek near Xenia..... 314-315
Cambridge, Wills Creek at..... 138-139
  Salt Fork below Salt Fork Dam near..... 140-141
  Salt Fork Reservoir near..... 171,173
Camden, Sevenmile Creek at..... 374
Campaign Creek near Gallipolis..... 406
Canton, Middle Branch Nimishillen Creek at..... 90-91
Captina Creek at Armstrong Mills..... 72-73
Carthage, Mill Creek at..... 338-339
Cells/volume, definition of..... 3
Centerfield, Rattlesnake Creek at..... 268-271
Central College, Big Walnut Creek at..... 232-233
  Hoover Reservoir at..... 288,290
Cfs-day, definition of..... 3
Charles Mill Lake, contents of..... 170,173
Chemical characteristics and biological indices of selected lakes..... 513
Chemical oxygen demand, definition of..... 3
Chester, Shade River near..... 192-193
Chillicothe, Scioto River at..... 258-263
Chippewa Creek, at Easton..... 78-79
  at Seville..... 390
  at Sterling..... 391
Chlorophyll, definition of..... 3
Circleville, Scioto River at..... 250-251
Clarence J. Brown Reservoir, contents of..... 356
Claridon, Olentangy River at..... 224-225
Clear Creek (Beaver River basin) at Dilworth..... 414
Clear Creek (Hocking River basin) near Rockbridge..... 176-177
Clear Fork below Pleasant Hill Dam, near Perrysville..... 120-121
Clendening Lake, contents of..... 170-173
Clinton, Tuscarawas River at..... 76-77
Collection and computation of data..... 7-9
Collection and examination of data..... 10
Collection of the data..... 11
Collins Creek at Collinsville..... 417
Columbus, Alum Creek at..... 238-239
  Griggs Reservoir near..... 288,290
  Scioto River at..... 230-231
Conotton Creek, at Jewett..... 414
  at Leesville..... 397
  at New Cumberland..... 39[illegible]
Contents, definition of..... 3
Control, definition of..... 3
Control structure, definition of..... 3
Cooperation..... 1-2
Cortland, Mosquito Creek Lake at..... 54-55
  Mosquito Creek near..... 40-41
Coshocton, Muskingum River near..... 134-135
Crab Creek at Youngstown..... 414
Crooked Creek near Stillwater..... 399
Cubic feet per second per square mile, definition of..... 3
Cubic foot per second, definition of..... 3

Darbyville, Big Darby Creek at..... 248-249
Dayton, Great Miami River at..... 364
  Mad River near..... 358-363
De Graff, Bokengehalas Creek near..... 340
Deer Creek, at Mount Sterling..... 252-253
  at Williamsport..... 256-257
  near Pancoastburg..... 254-255
Deer Creek Lake, contents of..... 289,290
Definition of terms..... 2-6
Delaware, Olentangy River near..... 226-227
  Delaware Lake near..... 288,290
Delaware Lake, contents of..... 288,290
Delaware Run near Delaware..... 415
Dillon Falls, Dillon Lake near..... 172,173
  Licking River near..... 158-159
Dillon Lake, contents of..... 172,173
Dillonvale, Short Creek near..... 70-71
Discharge, definition of..... 3
Discharge measurements at miscellaneous sites..... 418
Dissolved, definition of..... 3
Dover, Dover Lake near..... 169,172
Dover, Tuscarawas River near..... 96-97
Dover Lake, contents of..... 169,172
Downstream order and station number..... 6
Drainage area, definition of..... 3
Drainage basin, definition of..... 4
Dresden, Muskingum River at..... 146-147
Dry Run at Columbus..... 415
Dublin, O'Shaughnessy Reservoir near..... 288,290
  Scioto River near..... 220-223
Duck Creek, East Fork at Lower Salem..... 388
Dundee Creek at Dundee..... 414

Eagle City, Mad River at St. Paris Pike at..... 354-355
Eagle Creek at Phalanx Station..... 32-33
East Liverpool, Little Beaver Creek near..... 64-67
Easton, Chippewa Creek at..... 78-79

Page

Englewood, Stillwater River at.................... 348
Enterprise, Hocking River at.................... 178-179
Etna Creek at Etna.................... 415
Explanation, of ground-water level records...... 11
  of stage and water-discharge records.......... 7-10
  of water-quality records.................... 10-11

Factors for converting English units to International System (SI) units..Inside back cover
Fecal-coliform bacteria, definition of.......... 2
Fecal-streptococcal bacteria, definition of..... 2-3
Fishinger and Kenny Road Creek at Upper Arlington.................... 415
Frazeysburg, Wakatomika Creek near.............. 144-145
Fredericktown, North Branch Kokosing River Lake near.................... 171,173
  North Branch Kokosing River near.............. 124-125

Gage height, definition of.................... 4
Gaging station, definition of.................... 4
Georgetown, Whiteoak Creek near.................... 302-303
Germantown, Twin Creek near.................... 373
Glouster, Sunday Creek at.................... 182-183
Great Miami River, at Dayton.................... 364
  at Hamilton.................... 375
  at Miamisburg.................... 366
  at New Baltimore.................... 376-383
  at Sidney.................... 341
  at Taylorsville.................... 345
  at Troy.................... 344
  near Miamisburg.................... 376-371
Great Miami River basin, hydrologic-data station records in.................... 340-383
  reservoir record in.................... 356
Greenfield, Paint Creek near.................... 264-266
Greenhills, West Fork Mill Creek Lake near...... 334
Greenville Creek near Bradford.................... 346
Griggs Reservoir, contents of.................... 288,290
Ground-water records.................... 426-472
Ground-water records in strip-mines............. 473-512

Hamilton, Great Miami River at.................... 375
Hammondsville, Yellow Creek near.................... 68-69
Hardness, definition of.................... 4
Harwood Creek near Fayetteville.................... 416
Hayden Run at Haydenville.................... 415
Hebron, South Fork Licking River near........... 148-149
Higby, Scioto River at.................... 278-285
Higgins Run near Higginsport.................... 416
Hinkley Creek at Charlestown.................... 385,414
Hocking River, at Enterprise.................... 178-179
  below Athens.................... 184-190
Hocking River basin, hydrologic-data station records in.................... 174-190
  reservoir in.................... 180
Hog Run tributary at Laura.................... 417
Home Creek near New Philadelphia.................... 102-103
Hominy Creek at Circleville.................... 415
Hoover Reservoir, contents of.................... 288,290
Hugle Run near Malvern.................... 393
Hunters Run at Lancaster.................... 174-175
Hydrologic bench-mark station, explanation of... 7
Hydrologic conditions.................... 2
Hydrologic-data stations, in downstream order, for which records are published........... VI-VIII
Hydrologic unit, definition of.................... 4

Ice Creek at Ironton.................... 407
Indian Creek (Scioto River basin) at Massieville.................... 416
Indian Creek (Indian Creek basin) near Point Pleasant.................... 413
Indian Guyan Creek near Bradrick.................... 406
Ingomar, Twin Creek near.................... 372
Instantaneous discharge, definition of.......... 3
Introduction.................... 1
Island Creek near Toronto.................... 387

Jefferson Creek near Jewett.................... 414
Jennings Ditch tributary near Wooster........... 415
Jonathan Creek at East Fultonham.................... 404

Kale Creek near Pricetown.................... 22-23
Kilbourne, Alum Creek near.................... 234-235
Killbuck, Killbuck Creek at.................... 130-131
Killbuck Creek, at Burbank.................... 402
  at Killbuck.................... 130-131
  at Wooster.................... 403
Kinsman, Pymatuning Creek at.................... 52-53

Page

Kokosing River, at Mount Vernon.................... 126-127
  North Branch, near Fredericktown.............. 124-125
  North Branch Lake, contents of................ 171,173

Lake Fork below Mohicanville Dam near Mohicanville.................... 122-123
Lake Hope, Big Four Hollow Creek near........... 200-204
  Sandy Run above Big Four Hollow Creek near.... 194-198
  Sandy Run near.................... 206-211
Lakes, chemical characteristics and biological indices of selected.................... 513
Lakes and reservoirs:
  Alum Creek Lake.................... 289,290
  Atwood Lake.................... 169,172
  Beach City Lake.................... 169,172
  Berlin Lake.................... 54,55
  Bolivar Reservoir.................... 169,172
  Burr Oak Reservoir.................... 180
  Charles Mill Lake.................... 170,173
  Clarence J. Brown Reservoir.................... 356
  Clendening Lake.................... 170,173
  Deer Creek Lake.................... 289,290
  Delaware Lake.................... 288,290
  Dillon Lake.................... 172,173
  Dover Lake.................... 169,172
  Griggs Reservoir.................... 288,290
  Hoover Reservoir.................... 288,290
  Leesville Lake.................... 169,172
  Meander Creek Reservoir.................... 54,55
  Michael J. Kirwan Reservoir.................... 54,55
  Milton Reservoir.................... 54,55
  Mohawk Reservoir.................... 171,173
  Mohicanville Reservoir.................... 171,173
  Mosquito Creek Lake.................... 54,55
  North Branch Kokosing River Lake.............. 171,173
  O'Shaughnessy Reservoir.................... 288,290
  Paint Creek Lake.................... 289,290
  Piedmont Lake.................... 170,172
  Pleasant Hill Lake.................... 170,173
  Salt Fork Reservoir.................... 171,173
  Senecaville Lake.................... 171,173
  Tappan Lake.................... 170,173
  West Fork Mill Creek Lake.................... 334
  Wills Creek Lake.................... 172,173
Lancaster, Hunters Run at.................... 174-175
Leavittsburg, Mahoning River at.................... 39
Leavittsburg, Mahoning River above Duck Creek at 34-38
Leesville, Leesville Lake near.................... 169,172
  McGuire Creek near.................... 94-95
Leesville Lake, Contents of.................... 169,172
Licking River, below Dillon Dam near Dillon Falls.................... 158-159
  near Newark.................... 152-157
  North Fork, at Utica.................... 150-151
    above Newark.................... 404
    South Fork, near Hebron.................... 148-149
Linworth Run near Linworth.................... 415
Lisbon Creek at Lisbon.................... 414
List of hydrologic-data stations in downstream order, for which records are published.... VI-VIII
Little Beaver Creek, Middle Fork, near Rodgers.. 385
  near East Liverpool.................... 64-67
  North Fork, near Negley.................... 386
  West Fork, at West Point.................... 386
Little Beaver Creek basin, hydrologic data station records in.................... 55-67
Little Blackjack Branch near South Bloomingville 416
Little Miami River, at Milford.................... 318-325
  at Plainville.................... 417
  East Fork, at Perintown.................... 330-331
    near Batavia.................... 328-329
    near Marathon.................... 326-327
  near Oldtown.................... 304-305
  near Selma.................... 416
  near Spring Valley.................... 308-313
  North Fork, near Pitchin.................... 416
Little Miami River basin, hydrologic-data records in.................... 304-331
Little Muskingum River, at Bloomfield........... 74-75
  near Rinard Mills.................... 387
Little Salt Creek, South Branch at Jackson...... 416
Little Sandy Creek near Robertsville............ 395
Little Stillwater Creek, below Tappan Dam, at Tappan.................... 110-111
  near Dennison.................... 400
Lockington, Loramie Creek at.................... 343
Loramie Creek, at Lockington.................... 343
  near Newport.................... 342
Loudonville, Black Fork at.................... 118-119

Page
Lowellville, Mahoning River at.................... 44
  Mahoning River at OH-PA stateline below........ 46-50

Mad River, at St. Paris Pike at Eagle City....... 354-355
  at Zanesfield.................................. 350-351
  near Dayton.................................... 358-363
  near Springfield............................... 357
  near Urbana.................................... 352
Mahoning River, above Duck Creek at Leavittsburg 34-38
  at Alliance.................................... 16-17
  at Leavittsburg................................ 39
  at Lowellville................................. 44
  at OH-PA stateline below Lowellville........... 46-50
  at Pricetown................................... 20-21
  at Youngstown.................................. 42-43
  below Berlin Dam, near Berlin Center........... 18-19
  West Branch, below Michael J. Kirwan Dam, at Wayland.................................. 28-29
    near Newton Falls............................ 30-31
    near Ravenna................................. 24-26
Mansfield, Touby Run at.......................... 116-117
Marathon, East Fork Little Miami River near...... 326-327
Massies Creek at Wilberforce..................... 306-307
Massillon, Tuscarawas River at................... 80-81
McConnelsville, Muskingum River at............... 160-168
McGaw, Upper Twin Creek at....................... 292-299
McGuire Creek below Leesville Dam, near Leesville.................................. 94-95
Mean concentration, definition of................ 5
Mean discharge, definition of.................... 3
Meander Creek Reservoir, contnets of............. 54-55
Methylene blue active substance, definition of.. 4
Miamisburg, Great Miami River at................. 366
  Great Miami River near......................... 367-371
Michael J. Kirwan Reservoir, contents of......... 54-55
Micrograms per gram, definition of............... 4
Micrograms per kilogram, definition of........... 4
Micrograms per liter, definition of.............. 4
Mifflin, Black Fork near......................... 114-115
  Charles Mill Lake near......................... 170,173
Milford, Little Miami River at................... 318-325
Mill Creek basin, hydrologic-data station records in................................ 332-339
  reservoir record in............................ 334
Mill Creek (Beaver River basin),at Youngstown... 414
  near Berlin Center............................. 414
Mill Creek (Mill Creek basin), at Carthage...... 338-339
  at Reading..................................... 332-333
  West Fork at Woodlawn.......................... 336-337
  West Fork Lake near Greenhills................. 334
Mill Creek (Muskingum River basin) near Coshocton.................................. 132-133
Mill Creek (Scioto River basin) near Bellepoint. 220-221
Millers Ditch at Tipp City....................... 417
Milligrams per liter, definition of.............. 4
Milton Reservoir, contents of.................... 54-55
Mineral Ridge, Meander Creek Reservoir at........ 54-55
Miscellaneous sites, discharge measurements at.. 418
Mohawk Reservoir, contents of.................... 171,173
Mohicanville, Lake Fork near..................... 122-123
  Mohicanville Reservoir near.................... 171,173
Mohicanville Reservoir, contents of.............. 171,173
Mosquito Creek, below Mosquito Dam near Cortland 40-41
Mosquito Creek Lake, contents of................. 54-55
Mount Sterling, Deer Creek at.................... 252-253
Mount Vernon, Kokosing River at.................. 126-127
Moxahala Creek at Roseville...................... 415
Muddy Fork near Rowsburg......................... 402
Muskingum River, at Dresden...................... 146-147
  at McConnelsville.............................. 160-168
  near Coshocton................................. 134-135
Muskingum River basin, discharge measurements at miscellaneous sites in.................... 418
  hydrologic-data station records in............. 76-173
  reservoirs in.................................. 169-173

National stream-quality accounting network, explanation of............................. 7
Navarre, Tuscarawas River at..................... 82-86
Negley, Stateline Creek near..................... 56-62
Nellie, Mohawk Reservoir near.................... 171,173
  Walhonding River at............................ 128-129
New Baltimore, Great Miami River at.............. 376-383
New Burlington, Anderson Fork near............... 316-317
New Cumberland, Atwood Lake near................. 169,172
New Philadelphia, Home Creek near................ 102-103
Newark, Licking River near....................... 152-157
Newcomerstown, Tuscarawas River at............... 112-113
Newman Creek near Massillon...................... 392

Page
Newport, Loramie Creek near...................... 342
Newton Falls, West Branch Mahoning River near... 30-31
Nimishillen Creek, at North Industry............. 92-93
  East Branch, near Canton....................... 395
  Middle Branch, at Canton....................... 90-91
  West Branch, at Canton......................... 396
Nimisila Creek near Canal Fulton................. 391
North Branch Kokosing River Lake near Fredericktown.............................. 171,173
North Industry, Nimishillen Creek at............. 92-93
Numbering system for wells and miscellaneous sites...................................... 6

O'Shaughnessy Reservoir, contents of............. 288,290
Ohio Brush Creek, near Peebles................... 410
  near West Union................................ 300-301
  West Fork, at Lawshe........................... 411
Oldtown, Little Miami River near................. 304-305
Olentangy River, at Claridon..................... 224-225
  near Delaware.................................. 226-227
  near Worthington............................... 228-229
Organism, definition of.......................... 4
  count/area, definition of...................... 4
  count/volume, definition of.................... 4
Other data available............................. 9-10
Otter Fork near Centerburg....................... 415

Paint Creek, below Paint Creek Dam, near Bainbridge................................ 272-273
  East Fork, near Sedalia........................ 416
  near Bourneville............................... 276-277
  near Greenfield................................ 264-266
  North Fork, near Frankfort..................... 408
Paint Creek Lake, contents of.................... 289,290
Pancoastburg, Deer Creek near.................... 254-255
  Deer Creek Lake near........................... 289,290
Partial-record station, definition of............ 4
Particle-size, definition of..................... 4
Particle-size classification, definition of..... 4-5
Patterson Run near Owensville.................... 417
Percent composition, definition of............... 5
Perintown, East Fork Little Miami River at...... 330-331
Periphyton, definition of........................ 5
Perrysville, Clear Fork near..................... 120-121
  Pleasant Hill Lake near........................ 170,173
Pesticides, definition of........................ 5
Pesticides program, explanation of............... 7
Phalanx Station, Eagle Creek at.................. 32-33
Phytoplankton, definition of..................... 5
Picocurie, definition of......................... 5
Piedmont, Piedmont Lake at....................... 170,172
  Stillwater Creek at............................ 104-105
Piedmont Lake, contents of....................... 170,172
Pine Creek near Wheelersburg..................... 407
Pipe Run at Malvern.............................. 394
Plankton, definition of.......................... 5
Pleasant Hill, Stillwater River at............... 347
Pleasant Hill Lake, contents of.................. 170,173
Poplar Creek near Vandalia....................... 417
Preface.. III
Pricetown, Kale Creek near....................... 22-23
  Mahoning River at.............................. 20-21
  Milton Lake at................................. 54-55
Prospect, Scioto River near...................... 218-219
Publications on techniques of water-resources investigations.............................. 12
Pymatuning Creek at Kinsman...................... 52-53

Raccoon Creek at Adamsville...................... 212-217
Raccoon Creek basin, hydrologic-data station records in................................ 194-217
Rattlesnake Creek at Centerfield................. 268-271
Ravenna, West Branch Mahoning River near......... 24-26
Ray Run near Moscow.............................. 416
Reading, Mill Creek at........................... 332-333
Records of discharge collected by agencies other than the Geological Survey........... 10-11
Rees, Big Walnut Creek at........................ 240-241
Reservoirs (see Lakes and reservoirs) in Beaver River basin.......................... 54-55
  in Hocking River basin......................... 180
  in Great Miami River basin..................... 356
  in Mill Creek basin............................ 334
  in Muskingum River basin....................... 169-173
  in Scioto River basin.......................... 288-290
Rockbridge, Clear Creek near..................... 176-177
Rocky Fork near Barretts Mills................... 274-275
Rose Run near Portsmouth......................... 416
Runoff in inches, definition of.................. 5

Page
Salt Creek, above damsite near Londonderry...... 416
  at Laurelville...... 409
  at Tarlton...... 416
Salt Fork below Salt Fork Dam near Cambridge.... 140-141
Salt Fork Reservoir, contents of...... 171,173
Sandy Creek, at Malvern...... 394
  at Minerva...... 393
  at Waynesburg...... 88-89
Sandy Run, above Big Four Hollow Creek, near Lake Hope...... 194-198
  near Lake Hope...... 206-211
Scioto Big Run at Briggsdale...... 415
Scioto Brush Creek, at Otway...... 409
  South Fork, at Wamsley...... 410
Scioto River, at Chillicothe...... 258-263
  at Circleville...... 250-251
  at Columbus...... 230-231
  at Higby...... 278-285
  below O'Shaughnessy Dam, near Dublin...... 222-223
  below Shadeville...... 242-246
  near Prospect...... 218-219
Scioto River basin, hydrologic-data station records in...... 218-290
  reservoir records in...... 288-290
Sediment...... 10-11
Sediment, definition of...... 5
Seneca Fork below Senecaville Dam, near Senecaville...... 136-137
Senecaville, Seneca Fork near...... 136-137
  Senecaville Lake near...... 171,173
Senecaville Lake, contents of...... 171,173
Sevenmile Creek at Camden...... 374
Shade River near Chester...... 192-193
Shadeville, Scioto River below...... 242-246
Shawnee Creek at Xenia...... 417
Short Creek near Dillonvale...... 70-71
Sidney, Great Miami River at...... 341
Solute, definition of...... 5
Special networks and programs...... 7
Specific conductance, definition of...... 5
Spring Valley, Little Miami River near...... 308-313
Springfield, C.J. Brown Reservoir near...... 356
  Mad River near...... 357
Stage-discharge relation, definition of...... 6
Stateline Creek near Negley...... 56-62
Still Fork near Minerva...... 393
Stillwater Creek, at Piedmont...... 104-105
  at Tippecanoe...... 106-107
  at Uhrichsville...... 108-109
Stillwater River, at Englewood...... 348
  at Pleasant Hill...... 347
Straight Creek near Higginsport...... 412
Strasburg, Sugar Creek at...... 100-101
Streamflow, definition of...... 6
Sugar Creek, at Dover...... 399
  at Strasburg...... 100-101
  below Beach City Dam, near Beach City...... 98-99
  near Orrville...... 398
  near West Lebanon...... 398
Sunday Creek at Glouster...... 182-183
Suspended, definition of...... 6
Suspended sediment, definition of...... 5
Suspended sediment concentration, definition of. 5
Suspended sediment discharge, definition of..... 5
Suspended sediment load, definition of...... 5

Tappan, Little Stillwater Creek at...... 110-111
  Tappan Lake at...... 170,173
Tappan Lake, contents of...... 170,173
Tar Hollow Creek, at Tar Hollow State Park...... 286-287
  West Branch, at Tar Hollow State Park...... 416
Tar Hollow State Park, Tar Hollow Creek at...... 286-287
Taylorsville, Great Miami River at...... 345
Terms, definition of...... 2-6
Timber Run near Zanesville...... 415
Time-weighted average, definition of...... 6
Tippecanoe, Clendening Lake at...... 170,173
  Stillwater Creek at...... 106-107
Tons per day, definition of...... 6
Total coliform bacteria, definition of...... 2
Total load, definition of...... 6
Total organism count, definition of...... 4
Total sediment discharge, definition of...... 5
Touby Run at Mansfield...... 116-117
Trotwood, Wolf Creek at...... 365
Troy, Great Miami River at...... 344
Tupper Creek at Devola...... 415
Turkey Run (Ohio Brush Creek basin), West Branch, near Winchester...... 416
Turkey Run (Scioto River basin) at Upper Arlington...... 41
Tuscarawas River, at Barberton...... 389
  at Clinton...... 76-77
  at Coshocton...... 401
  at Massillon...... 80-81
  at Navarre...... 82-86
  at Newcomerstown...... 112-113
  at Tuscarawas...... 400
  at Uniontown...... 388
  at Zoar...... 396
  below Dover Dam, near Dover...... 96-97
  near East Liberty...... 389
Twin Creek, near Germantown...... 373
  near Ingomar...... 372

Uhrichsville, Stillwater Creek at...... 108-109
Upper Twin Creek at McGaw...... 292-299
Urbana, Mad River near...... 352
Utica, North Fork Licking River at...... 150-151

Wakatomika Creek near Frazeysburg...... 144-145
Walhonding River below Mohawk Dam, at Nellie... 128-129
Walnut Creek at Cortland...... 414
Water analysis...... 10
Water-quality, assessment of Rattlesnake Creek in the Scioto River basin...... 419-425
Water temperature...... 10
Wayland, Michael J. Kirwan Reservoir at...... 54-55
  West Branch Mahoning River at...... 28-29
Wayne Creek at Waynesville...... 417
Waynesburg, Sandy Creek at...... 88-89
West Fork Mill Creek Lake, contents of...... 334
West Union, Ohio Brush Creek near...... 300-301
Whetstone Creek tributary near Olivesburg...... 414
White Eyes Creek near Fresno...... 401
Whiteoak Creek near Georgetown...... 302-303
Wilberforce, Massies Creek at...... 306-307
Williamsport, Deer Creek at...... 256-257
Wills Creek, at Cambridge...... 138-139
  below Wills Creek Dam, at Wills Creek...... 142-143
  Wills Creek Lake near...... 172,173
Wills Creek Lake, contents of...... 172,173
Wolf Creek (Great Miami River basin) at Trotwood...... 365
Wolf Creek (Muskingum River basin) near Barberton...... 390
  South Branch, near Waterford...... 405
  West Branch, near Waterford...... 405
Woodlawn, West Fork Mill Creek at...... 336-337
Worthington, Alum Creek Lake near...... 289,290
  Olentangy River near...... 228-229
WRD, definition of...... 6
WSP, definition of...... 6

Xenia, Caesar Creek near...... 314-315

Yellow Creek near Hammondsville...... 68-69
Youngstown, Mahoning River at...... 42-43

Zanesfield, Mad River at...... 350-351

☆ U. S. GOVERNMENT PRINTING OFFICE: 1978 — 759-827

October 13, 1977

FACTORS FOR CONVERTING U.S. CUSTOMARY UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the U.S. customary units published herein to the International System of Units (SI). Subsequent reports will contain both the U.S. customary and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply U.S. customary units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons